TIMELY RUTHS ON HUMAN HEALTH

BY —

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UNIVERSITY OF CALIFORNIA
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Simon Louis Katzoff.

TIMELY TRUTHS ON HUMAN HEALTH

BY

SIMON LOUIS KATZOFF, Ph.D., M.D.,
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DEDICATION

To the victims, past and present, rich and poor, of adulterated food, patent medicines, compulsory vaccination, abuse of surgery, booze-guzzling, industrial diseases, autocracy of dress, false modesty, sex ignorance, and conventional hypocrisy; to those, who never had a real opportunity to learn the truth, being kept in ignorance and stupidity through the vicarious and popular channels of misinformation; to those, whose nerves, muscles, bones, marrow, and blood have been converted into dollars and cents under the iron heel of commercial greed, in the name of health, science, and benevolence; to those, whose inner and better selves remain crushed and stifled as a result of monotonous, loveless lives, tyrannical and fanatic parents, and uninspiring surroundings in general; to the patient "sons of toil," who constantly undermine their health and risk their lives, making it possible for us to appreciate art, music, literature, culture, and invention that the genius of human brain has brought forth, yet have for themselves little in return, save fatigue, malnutrition, soul-starvation, anxiety, fear, filth and premature death; to all these victims of our seething, restless, debauching, artificial, and health-wrecking era, impudently labeled "civilized," I affectionately and hopefully dedicate this book.

AUTHOR'S PREFACE

Who will dispute the assertion that we are living in an age when ignorance, superstition, dis-ease, intolerance, hypocrisy, and cowardice still form potent members of our social anatomy?

Few to-day dare openly express their honest convictions after having made an unbiased, rational study of any subject of real, human importance. They still cling (outwardly, of course) to dogmas and relics of the dark ages (we are living in an *enlightened* age, do not forget)—when at heart and mentally they have severed relationship with them, and hold that Truth should be as universal as sunlight. Why does this inconsistency prevail? For no other reasons than that these persons fear the "bread and butter" problem and the iron heel of Convention. Yet, I purpose to express myself candidly and earnestly on the most essential health issues, scrupulously striving to avoid any exaggerations, and trusting to the intelligence of the readers for their approbation.

Despite the fact that we have in "civilized" society such respected and influential members as Messrs. Envy, Prejudice and Intolerance, the human race has managed to make substantial progress in certain directions; what is more, millions of mortals are beginning to actually wake from their centuries of mental inertia and chronic "sleeping sickness."

To those who may be doubtful as to the actual influence of the aforementioned trinity—Messrs. Envy, Prejudice and Intolerance, I should suggest their writing a few articles worth reading or saying something (on the lecture platform) worth listening to, and they will soon be convinced that these human relics of pre-historic eras, are, as yet, far from being relegated to remote antiquity or stored away in the dusty attic of oblivion. They will, instead, soon realize that the *bitter cup of hemlock* that the great philosopher, Socrates, was forced to drink, as a "reward" for his *un*popular but very natural ideas, is still full (although not quite to the brim, as then) even unto this very late day.

Let any progressive physician differ on fundamental issues which the majority still seem to hold to (outwardly, at least), or let him constructively criticize some abuses in the profession,—let him (or her) try it, and no matter how honest, formerly admired, intellectual, prominent and successful he may have been, his chances of ever becoming president in any of the medical societies he may belong to becomes nil. Physicians will cease to send patients to him if he does special work; nor will they become overzealous to consult him. Physicians on hospital staffs will sometimes look up at him as if to say: "I certainly agree with you, but how dare you express yourself freely?" Others, still, may not hesitate to belittle his views—and even him, personally,—behind his back, of course, and later, shake hands with him "heartily," smile and chat in an ultra-friendly tone, upon meeting. Most doctors who blazed the way for medical freedom and health knowledge will tell

you practically the same story (and a good deal more) if you are their personal friends and "talk shop" with them in the dining room or on the veranda. Just try it.

Should we condemn the aforementioned *un*democratic, *in*consistent or hypocritical fellows in the profession? Should we even blame them? *No!* Psychoanalysis reveals that many of them are living love*less* and *un*interesting lives; hence their suppressed, repressed and depressed emotions—their inner and better selves (including the spirit of tolerance and fraternalism) remain stagnant and unmoved. There is not a more convenient way to give vent to this subconscious irritation than to burst forth, like lava, from the crater of a burning volcano, at the *least* provocation; or "whisper it out" of his system, in some form, against a brother physician, with whom he may differ on some issue; to whom he may owe a "ten spot"; or because he dared teach openly something of importance to the "common laity," who are supposed to know little and be submissive.

For all of these, my brothers in the profession, I have good-will and sympathy. What I *am* against is *not* the individual, but the *un*scientific, *in*efficient, haphazard, system*less* system—a social condition (like a cancer in the body) that makes victims of the physicians themselves, as well as their patients and the people in general. It is a system that prevents the patient from getting the best that scientific knowledge can offer; a system that cares little about prevention of human illness and promoting human happiness; a system that makes the doctor a

loser (financially) if he tells his patient *all* the truth; a system where the three distinct schools of medicine in the profession continually fight each other; a system that permits the existence of about fifty different Medical Examining Boards, holding meetings at fifty different times with reciprocities that are usually conflicting, confusing and unjust, when *one* National Examining Board, with *equal* representation from *all* schools of medicine (if a Board should be had at all) would be sufficient. (Read chapters: The Doctor and the Public; Ethics and the Doctor; Hospital Abuses; and Abuses of Surgery.)

The fact that there are many thousands of readers who will, owing to their own experience and understanding, recognize, almost immediately, some of their secret sentiments in the timely truths expounded in this book, and the fact that millions of betrayed and suffering humanity, gasping under the lash of poverty, fear and sex ignorance, are sadly in need of the information herein given, gives the author courage to present it.

"Timely Truths on Human Health" is a faithful presentation of facts and crystallized views on essential, human health issues and topics of our time (including corroborative and interesting quotations from reliable sources), accumulated by years of observation, reflection and comparative reasoning, in the study and actual practice of medicine and surgery. It teaches *prevention* of dis-ease and cultivates *self-reliance* during impending illness. Further, it exposes some of the abuses and superstitions that still exist in the practice of medicine as a result of ignorance, indifference, incompetence, and

crass commercialism of both doctors and patients. It is written in simple language and with no intention of flattery, camouflage, or employing niceties of expression to veneer the realities of health-problems. It tells truths irrespective of whose "corns may be stepped upon." In a word, it is "Twentieth Century" information, for truth-seeking, truth-loving, and truth-following persons.

It is hoped that this book will be of constructive and helpful service to many persons in the form of a gentle reminder on how to live simply and naturally as an aid to health and longevity—a sort of health-reminder. If only the life of one human being be saved by the knowledge gained through this volume, the effort and energy expended in producing it will not have been in vain. If it will prevent a few needless surgical operations on human beings (largely overdone these days); if it will only prevent a few thousands from being experimented upon; if it will convey what medical ethics are—and what they are not; how the restless, seething mass of people are being fed on adulterated food, and the like, it will have been worth while, despite the fact that its motives may be misconstrued, statements misrepresented, and its natural suggestions for future improvements ridiculed. The greatest compensation that one can ever hope to receive in producing something of human value, something that tends to alleviate human suffering, is the realization that one has done his very best. Every other compensation is insignificant in comparison.

And last, the only persons who do not make mistakes (or errors) are dead people. Living persons

make mistakes. The author is only human. Any suggestions or corrections offered by any one will be accepted in the kindest of spirit with acknowledgment and thanks, for the author is glad and ready to learn from other people's experiences and studies as well as his own. If we are ever to become angry, it will be with an *idea*, but never with the fellow who happens to *possess* the idea. He may be no more responsible for possessing his particular view than he is for having a long nose or red hair. He may be a wonderfully good fellow in spite of his views. In fact, we love those who *differ* with us, and even those who may enjoy criticizing us harshly as much as those who heartily agree with us. Only through an honest and tolerant "thought exchange" can we ever hope to achieve a maximum of health, love, good-will and happiness for all humanity.

Simon Louis Katzoff,
1001 State Street,
Bridgeport, Conn.

INTRODUCTION

So highly did the author of this book value the ability, and esteem the character, of my dear husband, that great and good physician, philosopher, and friend, Frederick Wallace Abbott, Ph.D., M.D., LL.D., late of Taunton, Mass., who on June 19, 1919, laid down the life which he had lived so masterfully and admirably, that he had chosen him of all his associates to write its Introduction. Dr. Katzoff did this, knowing full well that the master mind would do full justice to the theme of the book, and, indeed, the theme of Dr. Abbott's own life, as it were—the timely expounding of truth. This is shown in one of his favorite, oft-repeated quotations:

> "Unawed by numbers, follow reason's plan,
> Assert the rights, or quit the name of man;
> Consider well, weigh wisely right from wrong,
> Resolve not rashly—once resolved, be strong.
> In spite of dullness, and in spite of wit,
> If to thyself thou canst thyself acquit,
> Stand steadfast, though alone, in conscious pride,
> Rather than err with millions by thy side."

Now, when Death's hurried call has precluded the execution of the original plan, the author has expressed his sincere wish that the one who was most intimately associated with Dr. Abbott, as wife and co-practitioner, should write the Introduction.

The Doctor, as we used to call him at home, was deeply interested in Dr. Katzoff, for he recognized

in him many of the characteristics which so distinguished his own life. His love of clear, logical argumentation, at once helpful and elevating, his appreciation of true friendship, and, above all, his constant endeavor to wage the war of Truth, found pleasing parallels in Dr. Katzoff's life. It would be out of place here to treat exhaustively the many bases of common interest which drew the two "soldiers of peace" together.

Dr. Abbott, in his rare grasp of things human, used to say that most of the trouble in this world is caused by one of two conditions: ignorance, or cowardice, both of which, many will agree with me, hold far too much sway nowadays. It is through the endeavor of a brilliant, efficient, honest, up-to-date physician to neutralize, or, at least, to decrease those potent influences for evil, that "Timely Truths on Human Health" has been given to the public. And it is the author's not inconsiderable desire to elevate his own profession, placing it on a high plane of practical idealism, far above superstition, graft, and hypocrisy.

It gives me pleasure to testify in this foreword to the merits of Dr. Katzoff's book. The first word in the title, to my mind, is especially well-chosen, for there is, certainly, a real need to-day for the diffusion of knowledge regarding the principles of good health and how to put them into practice. "Timely Truths on Human Health" meets this need in excellent fashion by teaching not only how to prevent disease, but also how to cultivate self-reliance, which is one of the most essential principles in combating and avoiding illness.

Lastly, it is a book rare in its spirit of frankness. Sometimes, in our modern, French-heeled, tight-laced, camouflaged civilization, I believe there has not been enough of "Brushing . . . the bloom of fancy from the briar of fact."

Sylvina Apphia Abbott, Sc.D., M.D.

PART I

BAD HABITS

A habit may be defined as a tendency toward or the aptitude for the performance of a certain action. There are, of course, good habits as well as bad habits. In the race for supremacy, the bad habits outnumber and outstrip the good ones. Strange, we always notice the bad habits first. I mean the other fellow's habits, of course. In fact, the bad habits always get more recognition, sympathy, and attention than do the good ones. We enjoy them more, it seems.

No doubt you remember seeing children sucking their fingers—a habit that could have been prevented. You have, perhaps, seen the stenographer or bookkeeper chewing gum, making fancy forms of it during the day and at night gently sticking it on the side of the desk, so that it may be dusty enough the next morning for another day's "chaw." You need not laugh, for it is no worse than the habit of chewing a cud, I mean, chewing tobacco or snuff all day and becoming an "expert expectorator" with manifestations of such ability demonstrated all over the helpless cuspidors, mats, and sidewalks.

Did you ever study the habitual cigarette smoker while he is in action? He smokes his "butt," not because he really enjoys it, or because he believes it will make him stronger, or increase his appetite, or stimulate his thinking capacity to greater activity. He does it merely because he is used to it. It is the

habit! The little coffin nail has become more powerful than the smoker himself. I have seen them get out of bed to take another good "puff," like the dope fiend, who craves his "hypo," or the innocent, loving babe, who cries for the "bottle."

HABITS THAT DO NOT IMPROVE HEALTH

Breathing through the mouth, thus causing enlarged tonsils, adenoids, and other respiratory diseases;

Eating till you feel too lazy to get up from the table;

Sitting in cramped, stooped positions, which cause round shoulders and deformed spines;

"Ducking" your head under the blanket, while sleeping, for fear you may inhale some fresh air;

Taking a morning eye-opener in the form of a "Scotch Highball";

Taking "drinks" before meals as appetizers;

Eating pills and drinking tonics as per advertisements;

Wearing tight corsets while awake, and sometimes while asleep;

Wearing camphor on the chest, garlic in the pocket, and masks on your face as preventives of influenza, pneumonia, or something similar.

PERSONAL HABITS

Are you guilty of:

Using "ammunition" on the face—I mean, powdering it and smearing it with harmful coloring matter?

Biting your finger nails, as though you had nothing else to eat?

Pulling the fingers to make them crack?

Snoring so loudly that the members of the family wake wondering whether some one is sawing wood?

Being unclean in body, mind, or home?

SOCIAL HABITS

Do you:

Blame your wife or partner for most of your mistakes?

Dump your woes on others, instead of being interested in their welfare?

Apply to yourself the motto, "To err is human, to forgive divine," and forget to apply it to others?

Mix personal issues in fraternal matters?

Spend your money foolishly and let your dues get behind?

Raise "points of order" and elect yourself as authority on parliamentary law?

Remember previous mistakes and remind the membership of forgotten grievances when everything is running smoothly at the meeting?

Blackball prospective members of your lodge, because of some petty personal affair?

Stamp your feet or whistle at a "movie" when the film becomes momentarily disconnected?

Send flowers to the dead, instead of the living?

Hesitate to tell the truth for fear it may achieve for you an enemy?

HABITS OF CHARACTER

Do your friends smile when you:

Talk much, but say little?

Are disturbed at trifles, or insignificant daily incidents?

Do not govern your own tongue, but try to control theirs?

Do only what you want to do, and find excuses for not doing other tasks?

Are too serious, when to be sincere would be sufficient?

Make promises, instead of making good?

Always talk of your own ability instead of seeing some in others?

Class men as "successful" merely because of money?

Say, "There's no use talking," and then keep on talking?

Kiss your wife mechanically before meals and at night, as if it were a dose of medicine?

Leave your wife at home, while you go to the "show," a ball game, or to an opera?

When, oh, when, will people learn that the natural and simple is the correct and beautiful, and that sooner or later we must pay a dear price for our slavish and gluttonous indulgence in bad habits?

TIGHT LACING—A MENACE TO HEALTH

A great destroyer of women's health, natural beauty, and life itself is a certain apparatus, or harness-like contraption, commonly known as "the corset." Tight dressing will aid materially in hastening headaches, giddiness, jaundice, cancer of the breast, coughing, abscess of the lungs, consumption, diseases of the womb, palpitation of the heart, indigestion and other abnormalities. Furthermore, the birth of deformed and unhealthy children, a large number of whom die during the first and second year of infant life, is due in a measure to tight dressing.

Just accuse a woman of wearing tight dresses, and she will, as a rule, indignantly deny that she does. She will inform you rather that she is "comfortable." She pleads further, "I must have a support." She has dressed tightly for so long a time that she has almost paralyzed certain muscles of her body, which in consequence of their enforced contraction caused by the corset now refuse to perform their natural and original function—that of supporting. Then it is that she has to continue a substitute (an artificial support), in the form of linen, cotton and whalebones.

Miss Annette Kellerman, in recent interviews, urged the abolishment of the corset and pleads for sane dressing: "If women but understood and obeyed the laws of nature, their ailments would

rapidly disappear. There are, of course, many other factors that cause women to be invalids, but errors in dress play an important rôle. The garments should be worn so that no part of the body will have undue pressure exerted upon it and thereby interfere with the proper circulation of the blood. The savage tribes seem to be more civilized in this respect than we are."

Should women be blamed for this outrageous style imposed upon them? It is no direct or primary fault of theirs. It was conceived in the minds of those who knew that women desired to be beautiful—and therefore the corset was put on the market. As long as there is profit in it (be it harmful or harmless) it will be sold. Worse than all, it is being sold —in the name of health and beauty.

Why not realize that man's idea of a well-dressed woman is responsible to a great extent for woman's dressing as peacock-like and harmful to health as she does? If men had a more wholesome conception of dress and encouraged it we would probably have it. When women observe that the average "man" pays more attention to the tight-laced, high-heeled, low-necked, V-backed, short-skirted woman, they certainly are encouraged to dress as nearly as possible that way.

And why should women wear skirts at all? They are often uncomfortable, unsanitary and vulgarly suggestive. What they should wear is modified *pantaloons.*

Edward Earle Purinton well writes in "The Corset in Court," which appeared in *Naturopath Magazine* (New York, N. Y.): "Men have not learned to

look first for the mother in a woman, cherishing that as the fundament of her nature. For men do not know that only the born mother makes the glorious sweetheart. Motherhood demands a generous waist for the accomplishing of its purpose; and the man you can trust is the man who sees his sweetheart first as the predestined mother of his child. How few right-minded men there are; almost as few as there are the right-bodied women. And the physical pain that resides in a corset gives many a woman a strange thrill of joy that no man could ever understand without the actual feeling. You need not make fun, Mister Man, you with the padded shoulders, creased and cuffed trousers, slit coat-tail, and slavishly brimmed hat. The very best of us semi-civilized Indians cannot be altogether happy unless our blanket is a bit the reddest or our beads undoubtedly the brightest."

As long as woman will imagine that the corset gives her a "better shape," and as long as man will be attracted by the "better-shaped" woman there can be no hope of corsetless and comfortable styles.

When will grown human beings appreciate the simple and natural as the proper and beautiful, and cease converting their bodies into hatracks and clotheslines?

PATENT MEDICINES

Among the common, fraudulent methods of exploitation to-day may be mentioned the patent medicine game. Patent medicines have placed many a person on the operating table; have produced weak hearts, weak stomachs, and weak kidneys; in fact, have dug many an untimely grave. Patent medicines have helped materially to keep us doctors busy. Still the people keep on taking all kinds of patent medicines and keep on being sick, also.

Now let me say right from the outset: I do not believe that *every* patent medicine is bad or harmful. There are a number of patent medicines on the market that are, in themselves, harmless. I may even say further, that some of them are no more harmful, perhaps, than some ordinary prescribed medicines, which sometimes are adulterated, substituted or needless.

The trouble is that the "virtues" of the medicines are terribly exaggerated. They are supposed to be good for about forty different ailments, from "the pip" and bunions to scarlet fever, cancer, and tuberculosis.

If the patent medicine manufacturers would, along with advertising their medicines, teach the people how to live properly, and how to prevent being sick, and how not to need this same medicine later, they would at least do *some* good. Instead of teaching

the people self-reliance and clean, natural, simple living, for maintenance of health, they teach them to depend exclusively upon the bottle, capsule, or pill for health, strength and life. What a farce! What a commercial outrage! "Timely Truths on Human Health" teaches the people not to depend for health on a capsule, a trip to Palm Beach, Venice or Nova Scotia, nor to create "a Savior" in the form of a pill, but to seek for health in *correct methods of living.* In other words: fresh air, sunshine, good food, clean water, exercise, good cheer and interest in one's work, form the best "capsule" and "tonic" for efficiency, health and longevity and are the best preventives of any disease.

We are a race of "pill-swallowers" and "tonic-guzzlers"—and that is the very thing that the writer is pointing out and is against. By living properly—in conformity with nature's laws, nobody will need medicines at *any* time. To-day, if one is really sick, has tried simple methods himself first, such as rest, elimination, cleansing or spraying the nostrils, and sponging the body, and does not improve, and believes that he needs medicine, by all means let him call his physician—and call whatever kind he likes best (homeopath, eclectic or allopath). If medicines should happen to be indicated, then get them only on the advice or under the care of the physician.

This modern deception, popularly known as patent medicines, is a great scheme by which the people are beguiled, duped, and deluded out of their hard-earned dollars and cents. It is heart-breaking to notice how people have lost their self-reliance to the extent that they are depending on artificial "tonics"

and "appetizers" as aids to digestion. The fact that one imagines he "needs something" for his digestion —or indigestion, rather—is sufficient proof that something is wrong; some important tissues are debilitated, injured, or overworked. It is possible that a rest for his overworked, abused stomach and intestines is all that is needed. However, Mr. Glutton says: "Oh, no! I must continue to eat, no matter if I burst," and therefore resorts to a stimulant, tonic or digestive agent which whips his system into submission for a while, but which comes back at him with renewed irritation a little later. It would be more sane to find out the cause and remove it, instead of treating the effects.

THE SPRING TONIC CRAZE

A "stylish" way of getting certain medicines before the public is to teach that "you need a Spring Tonic," just as "U-Need-A-Biscuit." People begin to believe they need a spring medicine for their blood, stomach, and the like, when in reality what they need to do is to change their winter underwear to summer weight; to begin to bathe more freely and to eat less heartily and more carefully. Many a twenty-five cent piece or dollar bill has gone into this Spring Tonic for the patent medicine manufacturers' bank accounts, when it could have been utilized by the invalid mother and other members of the family for a number of real necessities. But remember what Barnum said: "The American people want to be humbugged."

It is laughable when we stop to think of this

"Spring Tonic" idea. Why a "spring" tonic? Why not a "fall" tonic? A "winter" tonic? Are the people perfectly normal or well after a hot, tiresome summer? Do they not overeat in the summertime? Are they not more apt to neglect exercise and to eat excessive sweets and candies in summertime? Winter, it seems, would be the ideal time for a "tonic," if at all.

Then again, how about the large quantities of alcohol in patent medicines as "preservatives"? What a successful way of evading the prohibition laws! Is there any wonder that our insane asylums are overcrowded and the undertakers have such busy seasons?

There was a time when "those who knew" thought that an ill person was possessed of devils or spirits, and they used to blow horns, clash cymbals, yell, make noise, and beat drums, and sometimes beat the patient, in order to beat the devil out of the fellow; now they also beat the devil out of a fellow by permitting him to dope himself with any kind of concoction under the pretense of a guaranteed cure for every known ailment.

Another bad habit the public got into is the "running over to the drug store" for "a little of this and a little of that." For example, many a woman will become a victim of aspirin, which weakens the heart when taken continuously; others will call for a "bromo" (bromo-seltzer), and still others for a few tablets of strychnine, "when they think it is necessary." Some seem to talk as if quinine can cure malaria, the itch, mumps and infantile paralysis.

Others use calomel for the liver, sores, complexion and summer complaint. And so it goes, in the name of science, health, love and mercy!

It is needless to enumerate the popular headache, cathartic and cough remedies that flood the market to-day. Those who take these are strangely more often ill than well and a constant source of practice for physicians and surgeons. Enough said.

TEA AND COFFEE

Everywhere, it seems, seeds of intemperance are being sown, and aching hearts are reaping the unwelcome harvest. Intemperance in all things is a terrible pestilence of the twentieth century. The dining room table with its highly seasoned foods, flesh-meats, fiery relishes, spices, condiments, tea, coffee and brandy sauce, only stimulates appetite and passion, causing us to eat for gluttony, and pave the way for untimely graves. This gluttonous existence also benumbs the finer sensibilities in our better selves. We aim to teach "total abstinence from that which is hurtful, and a moderate use of that which is good."

TEA

On the subject of "Tea," the *London Lancet* says: "Tea has undoubtedly its victims, as well as alcohol. Alcohol, of course, is a more insidious poison than tea, and its effects are more drastic and perceptible. Nevertheless tea may be equally stealthy in disturbing functional equilibrium. When we know that tea is a drug not a food, we need not hesitate to affirm that any use of it whatever is an abuse of our system."

The next time you notice some one drinking a cup of tea, remember that the following are the chief chemical constituents of two typical varieties of the plant:

	Black Tea	*Green Tea*
Water	8.20	5.96
Caffeine	3.24	2.33
Alcoholic Extract	6.79	7.05
Tannic Acid	16.40	27.14
Cellulose	34.00	25.90

From—"School of Health"

The most active constituent in tea is an alkaloid known as *tannin,* which makes tea have astringent effects. It constipates the bowels and interferes with normal digestion. Locally tea is a mild hemostatic (agency that checks bleeding) and a useful wash for stubborn ulcers, etc. That being the case, why not employ tea for *external* rather than *internal* purposes?

The *caffeine* is the main nerve and heart stimulant. By continued use it loses its stimulating effect and depresses the digestive functions.

Tannin is the least desirable of the constituents of tea, because it is the slowest to dissolve. The quicker an infusion of tea is made, the more fragrance (such as is termed "fragrance") and less bitterness it has; the more slowly, the more poisonous tannin. Tea should never be boiled, or allowed to stand long unless the *tannin* is wanted. If tea is made in an iron vessel or in a tin one which has begun to wear, it will become dark from the formation of a bitter *tannate of iron.* Then, you may be drinking metals in a liquid form. You may be surprised to learn that the commercial value of tea does not depend as much upon its ingredients as it does upon its *aroma.* The teas of our market are nearly always "blends," by mixing several grades together. We usually buy what smells good

regardless of whether it is the best or not.

According to recent estimates, the world's product of tea is about five hundred million pounds annually, valued at seventy-five million dollars. For tea, coffee, and cocoa, the world spends *daily* nearly a million dollars. Is there any wonder that we have so much excitement and irritability among most people? No wonder there is so much misunderstanding and prejudice in this little world of ours. And is there any wonder that heart disturbances are becoming more and more prevalent?

COFFEE—AN ABUSED MEDICINE

Persia seems to be the native land of coffee. Thence it was carried into Arabia, where it was first used, not as a beverage, but for medicinal purposes. Coffee did not become an article of trade until the middle of the sixteenth century. It was used so freely in Turkey that the government finally forbade its use, but being unable to suppress the sale, levied a heavy tax upon it. The Mohammedan priests complained that the mosques were neglected, while the coffee houses were thronged.

The most important (and harmful) ingredient in coffee is a drug known as *caffeine*. It occurs in combination with *caffeo-tannic acid*, in varying proportions between one-half of one per cent and two and three-tenths per cent. Besides the *caffeo-tannic acid*, which yields from four to five per cent, we find other ingredients in coffee such as *fixed* oils, from fourteen to twenty-two per cent, *dextrin* from fourteen to sixteen per cent, some *albuminoid matter* and minute quantities of a *volatile oil*.

Ground coffees are apt to be adulterated by grains of various kinds. What is not adulterated these days? Unground coffee is seldom adulterated. Beans and chicory roots are the most important adulterating agencies in ground coffee. Most substitutes in mixtures of coffee change their color when shaken in water.

Coffee, owing to its constituent *caffeine*, is a nerve and heart stimulant and, as *John Harvey Kellogg, M.D., LL.D.*, Editor of *Good Health*, says: "It is, indeed, one of our most dependable drugs for raising blood-pressure in cases of shock. The average coffee drinker is probably not aware of the fact that in drinking an ordinary 'good' cup of coffee he is administering to himself a double medicinal dose of caffeine, as an ordinary 'good' cup of coffee contains four grains of caffeine."

Is there any wonder that so many people during middle age, when they should be enjoying the best of health, are instead bothered with high blood-pressure, due in part to drinking large quantities of coffee? The excessive use of coffee produces wakefulness, nervousness, confusion, incoherence of thought; also palpitation and irregular action of the heart, and various digestive disturbances. Blindness and disordered vision have been attributed to the indulgence of coffee.

Coffee and tea are medicines, and not foods. They should be administered or prescribed with caution like other drugs. One patient may need only a few teaspoonfuls of coffee to derive the desired stimulating effect, whereas another patient may need a few tablespoonfuls every few hours. Then again, with

some patients it is contra-indicated; that is, it is not called for—not necessary; and if taken "anyhow" will result in harm to the drinker.

To drink these medicines (tea and coffee) "any old time," and when "visitors come," is a crime to one's self and his dependents. One might as well chew tobacco "when guests come" or drink a cupful of whiskey after each meal, or chew some arsenic, garlic, or liver all day, just because his palate "enjoys" it. This sort of "living" should be stopped.

ALCOHOLISM

In the whole realm of organic life the human is the only animal that debauches and converts his digestive system and eliminative organs into alcoholic sewer pipes. Kingdoms have fallen; business men have gone into bankruptcy; jobs have been lost; young men have left their college education incomplete; virtuous girls have been ruined; homes destroyed; venereal diseases encouraged and prolonged; diseases of the liver, stomach and kidneys brought about; insanity increased; doctors kept busy; criminals made; divorce courts kept alive; because this diabolic and malignant disease called *ALCOHOLISM* has succeeded in spreading its fangs, crushing, maiming and destroying humanity.

This alcoholism has been the curse of ages, but it has reached its height in this century since the brewery trust has cunningly taught the people to believe that whiskey, beer and the like were "concentrated foods" or "tonics." Few realize that even beer, wine, and whiskey can be and have been adulterated like some of our foodstuffs. Sometimes the adulterating material does more harm than the beer or whiskey itself.

Every alcoholic victim is a "walking exhibit" or living testimony of the advertising efficiency and practical success of the brewery interests. For their own glory, these have created mental, physical, and

financial paupers of many thousands of good men and women. We are the only bipeds known who respond favorably to the whims, fancies and advertising campaigns of these interests.

ALCOHOLISM

What is alcoholism? Alcoholism or alcohol-poisoning is the morbid effect of excess in the use of alcoholic drinks. It appears in acute and chronic stages.

ACUTE ALCOHOLISM

Acute Alcoholism may be the result of the "first booze indulgence." You probably remember how some friend or acquaintance looked after the first "spree," with his flushed face, incoherent speech, loss of muscular control, nausea, and stupor; commonly referred to as the "morning after the night before" effect. Then, that splitting headache, those stomach pains, general weakness and trembling! All this unpleasantness would not be in vain if only the "Henry Dubb" would realize his mistake and quit. But the trouble is, he wants to show that he is a "regular guy," and takes "another plunge." Before he realizes, he is a full-fledged "drunk" often seen with a large "schooner" in hand, one foot on the "foot bar," nose red, hat tilted, and on the verge of another spasmodic jerk (hiccough). Of course, this picture is not so visible to the ordinary public now as in the past.

CHRONIC ALCOHOLISM

The chronic effects of alcohol create degenerative changes in the system, such as fibrous hardening of

the heart, arteries, liver, and kidneys. Microscopic examination would show an overgrowth of fibrous tissue and a wasting of the cells and tissues that concern themselves with the filtering and eliminative processes of the kidneys. When the chronic consumer, after years of indulging, begins to "reap the harvest" he has enlargement of the heart. The next time you hear somebody say of a certain "heavy" drinker that he has a "big heart" you may be hearing the truth after all, *anatomically* speaking. Further, examination would reveal the kidneys shriveled and granulated instead of smooth. The hobnailed liver of the alcoholist is an old story, technically known as "cirrhosis of the liver."

Why should the faithful liver suffer for the sins of its master? What crimes have the liver, kidneys, and stomach committed that they should be so brutally treated? The truth is that the liver, kidneys, and stomach are our most loyal and devoted friends. If you will take half the care of them that they take of you, you will never regret it. Besides, it will pay very well for the time, energy, and patience invested! You sometimes "kick" about your boss in the shop or office neglecting you. Let me ask whether you take good care of "your own employees"? Do you realize that when you irritate and chill your stomach, liver, and kidneys with adulterated whiskey, wine, and beer that you are giving pain and discomfort to yourself, reducing your vitality, actually killing living matter, and that you are abusing your best workers—your best servants? Then, when they "go on strike" (your kidneys and stomach) you kick like

h—— because they give you some inconvenience in form of pain, belching, splitting headaches, and backache.

Remember, there is no happiness without health, and that the way to be healthy and happy is to lead a simple, clean life. In order to lead a simple and clean life you must eliminate bad habits, among which indulgence in alcoholic concoctions is one of the worst kind.

A FEW INSTRUCTIVE SAYINGS

"Intemperance is the mightiest of all the forces that clog the progress of good."—BUXTON.

"Intemperance is the voluntary extinction of reason."—CHANNING.

"To bite the hand that is feeding you is the basest ingratitude; but the liquor traffic destroys both soul and body of those from whom it filches its millions." —*The Instructor.*

"Not so very long ago poor people in London waited to buy sugar, and yet carloads were destroyed in London breweries. Where is your consistency?" —JENNIE CRISTOL, Chicago.

"Drink should be opposed, because it opposes the drinker."—JOSEPH A. KATZOFF.

WHAT SCIENCE HAS TO SAY

"It is false that alcohol aids digestion."—F. R. LEES, M.D.

"Good health will, in my opinion, always be injured by even small doses of alcohol."—SIR ANDREW CLARK, M.D.

"Few seamen have been in the cold more than I have, and I know spirits do harm."—Captain Perry.

"The common notion that some form of alcoholic beverage is necessary in tropical climates is, I believe, a mischievous delusion."—Dr. Park.

"Whoever wants, by a short and easy method, to divest his thinking of all clearness and balance, let him apply the bottle."—Jno. Guthrie, M.A., D.D.

"In my study of thirty thousand children, taken from the school attended by the wage-earning class in New York, I have found conditions apparently incredible in a civilized country. Laboring under the functional traits inherited from drinking parents, seventy per cent of the children have managed to secure alcoholic beverages in some form, ranging from a glass of beer to five glasses a day. Twenty per cent drank wine and spirits."—Dr. T. Alexander MacNicholl.

"Prodigious quantities of good food, soundly adapted to the human machine, are expensively treated and destroyed to make alcohol. Surely there is a matter here for consideration in connection with the high cost of living."—"Alcohol—Its Relation to Human Efficiency and Longevity," by Dr. Eugene Lyman Fisk.

SAYINGS FROM LITERATURE

"Wine is a mocker."—Solomon.

"A curse."—Queen Victoria.

"A scandal and a shame."—William E. Gladstone.

"A trap for workingmen."—Earl Cairnes.

"A devil in solution."—Sir Wilfred Hawson.

"The mother of want and the nurse of crime."—Lord Broughton.

"Oh! that men would put an enemy in their mouths, to steal away their brains!"—Shakespeare.

"Intemperance is not the only sin in the world, but it is one of the most prevalent and dangerous."—Anon.

"The liquor traffic is a cancer in society. It must be eradicated; not a root must be left behind."—Abraham Lincoln.

"Alcohol gives neither health nor strength, nor warmth nor happiness. It does nothing but harm."—Tolstoi.

"Alcohol is food for lust, lies, idleness, dishonesty, and every 'slug' and 'scale' and parasite of character. But from Noah's time to the fourth year of William IV, it never fed a virtue in any man."—Jno. G. Wolley.

The following very interesting poem is selected by Matilda Erickson, and printed in her book, "Temperance Torchlights," from which we quote:

THE SONG OF THE RYE

I was made to be eaten and not to be drank;
To be thrashed in the barn, not soaked in a tank.
I come as a blessing when put through a mill;
As a blight and a curse when run through a still.

Make me up into loaves, and your children are fed;
But if into drink, I'll starve them instead.
In bread, I'm a servant, the eater shall rule;
In drink, I'm master, the drinker, a fool.

—Selected.

WHAT LIFE INSURANCE REVEALS

The records of the British Life Insurance Institution show that during the period from 1886 to 1910 the users of alcohol, who were about equal in number to the non-users, and selected as high-grade, temperate risks, showed a mortality of 37 per cent in *excess* of that exhibited by the abstainers.

The figures of the New York Life Insurance Company show that among those addicts, who had taken a cure for alcoholism and were temperate at the time of acceptance, the extra mortality was 70 per cent. In the experience of forty-three companies, among those who had taken a cure, and remained total abstainers up to the time of acceptance, the mortality was 35 per cent above the normal. Those who had been heavy drinkers, and who had reformed without taking a cure, showed an extra mortality of 32 per cent, probably because of stronger will power and sturdier nervous constitution.

DRINKERS AND ABSTAINERS COMPARED

The Mutual Life Insurance Company's experience from 1875 to 1889 showed a mortality among abstainers 23 per cent less than among users. A second investigation by Dr. E. Pirter, medical director of the company, covering the years 1907 to 1912, showed the mortality among total abstainers to be 17 per cent less than among moderate users.

The Northwestern Mutual Life Insurance Company's experience exhibited some curious conditions. Temperate beer and wine drinkers showed a mortality only about 3 per cent in excess of abstainers;

whiskey drinkers and heavy beer drinkers showed a death rate of 25 per cent higher than the abstainers.

In 1900 the Equitable Life Insurance Company established an abstainers' class. Judging from cases in which dividends have been paid, the death rate in the abstainers' class has been at least 25 per cent less than in the general class.

THE ECONOMIC SIDE

Alcohol is a wonderful help in the arts, sciences and manufacture. Some claim it to be a good cleanser of windows and polisher of certain furniture. Surely it makes a poor wash for one's stomach and kidneys.

There are some people who say that alcohol or its abuse is the cause of all poverty and misery in the world. The abuse of alcohol may be a contributory cause to a great deal of misery and poverty, but not a primary or direct one. Let us suppose that we have "absolute prohibition," would that eliminate poverty and misery? Is it not more probable that the loss of a job for a long period, or a loveless marriage, or the monotonous existence (eternal grind) of some people drives them to drink? Why not, then, remove the *cause* of alcoholism first, to be scientific and efficient about it? Until the people understand that their craving for alcohol (or any other stimulant) is a symptom of disease, and that their sorrows cannot be drowned in a "schooner," we shall have poverty and misery. Until the people are educated enough to know *why* "booze" exists, *how* it is made, and the destructive *results* of indulging in it, it will be sold (and drunk *irrespective*), and poverty

and misery will be with us. It is a matter of education. It will never be accomplished by conventional force. We cannot put a muzzle on a crippled, craving appetite. Until people become more educated in everything pertaining to their welfare, "booze" and all other artificial stimulants will be sold; if not openly, covertly; not only in saloons, but in grocery stores, barber shops, drug stores, clothing stores, and crockery stores; from cellars, roofs, and ceilings; in streets and alleys; and in valley and mountain districts.

Further, wholesome food, proper shelter, and hygienic clothes plus the opportunity to render useful service according to one's natural ability, would create a desire for mental and physical culture, to such a degree that it would lessen "irritability" and tend to remove the abnormal craving for "booze," which converts the digestive and eliminative organs of human beings into "alcoholic sewer-pipes."

"SMOKING CHIMNEYS" OR THE TOBACCO HABIT [1]

Men and women are too noble, too good, and too valuable to themselves, their dependents, and the community to be permitted continuous, self-deterioration with "skunk weed" without a rational word of advice and warning from those more fortunate in knowing the truth.

The tobacco habit (or tobacco disease) victimizes its devotees physically, mentally, and commercially. It makes the tobacco trust richer, and the common people poorer. Thus people "pass their time" acquiring "tobacco heart" and prepare for other diseases. Often, had it not been for this repugnant weed, they might have utilized their leisure moments for intellectual advancement and service in the cause of humanity.

A NASTY HABIT

From "The Tobacco Skunk and His Depredations," by J. W. Hodge, M.D., in *The Naturopath*, October, 1911, we quote: "So utterly odious and repulsive is this vile practice to the normal instincts of both man and beast that the former is at first made deathly sick by it, while the latter instinctively refuses to adopt it. Of the entire animal kingdom, the male animal of the *genus homo* seems to be about

[1] Compilation of opinions.

the only animal on this mundane sphere who is addicted to this filthy and degrading practice. . . ."

MILLIONS WASTED ANNUALLY

To give the reader some idea of the appalling expenditure of money to make nuisances of men, and also to keep us physicians busy, the writer will quote from the Internal Revenue Report for the fiscal year ending June 30th, 1917: (Recent statistics are still more deplorable.)

"Every man, woman and child smoked on an average ninety cigars last year, a total of 9,216,901,113. If the average cost of each cigar was only five cents the total cost would be $460,000,000, or an average of about $23 a year for each family.

"But we must not forget Mr. Cigarette! Last year we consumed only 30,529,193,538 cigarettes, or an average of about 300 for every man, woman, and child in the country. The country used 445,763,206 pounds of tobacco for smoking and chewing. The total consumption of snuff was 35,377,218 pounds, making an average of one-third of a pound of snuff a year for every person in the United States.

"It has been estimated that the internal revenue from tobacco for a year would build fourteen battleships of the first class, or it would pay the salary of the President of the United States for nearly a thousand years.

"The money spent by smokers for cigars, exclusive of cigarettes, chewing tobacco and snuff, would more than pay for the building of the Panama Canal and would take care of the $50,000,000 paid to the

new French Canal Company and the Republic of Panama for property and franchises.

"There are 21,718,448 cigars consumed in the United States every twenty-four hours, 904,935 every hour, 15,082 every minute, and 251 every second.

"Were all the cigars smoked yearly in the United States put together, end to end, they would girdle the earth twenty-two times.

"If all the cigarettes smoked were strung on a wire they would make a cable that would reach from the earth to the moon and back again, with enough left over to circle one and a half times around the globe.

"If this quantity of tobacco could be placed on one side of a huge balancing scale it would take the combined weight of four vast armies, each army consisting of 1,000,000 men, to pull down the other side of the scale."

This gives some idea of what goes up in smoke every year! Do we ever stop to consider that this enormous amount of wasteful expenditure falls largely upon the poor people? Many a poor wife drudges, toils, and sweats, from morn until night, saving every cent, so that her husband may "enjoy" the luxury of a filthy pipe! Many a man's last nickel has gone for "a plug" or "a chew." This sort of pleasure opens the way for illness.

A POOR MAN'S LUXURY

Some people talk about tobacco being "a poor man's luxury." We might as well argue that opium-smoking, morphine-eating, cocaine-sniffing, and

booze-guzzling give "pleasure" or afford certain people "luxury," and that therefore we have no right to even suggest a remedy. Why is it that practically only men require it? If it is supposed to relieve or "smooth out" the burdens of the laborer, why not give it to the laborer's wife? Has the wife of the laborer no burdens to bear? And if tobacco "steadies the nerves," why should not our wives, daughters and mothers "have a chew" or "a puff"?

"MODERATION" IN SMOKING

There is no temperance or moderation in vice or error. Temperance requires total abstinence from things hurtful. The evil is in the thing itself. One might as well argue that one rotten egg a day can't hurt much; it is administering poison in moderation. The fact is that although one decayed egg will not kill (as a rule), yet it will harm. It goes without saying that four, five, or more such eggs a day will become very harmful—at least in time. It is true that we can become accustomed to any poison, whether it be tobacco, decayed eggs, or anything else. We do not need any more proof to show that we can accustom ourselves to inferior or adulterated foods than the human evidence of much daily living. (Read chapter "Food Adulterations.")

A story told by a cigarette:

"I am not much of a mathematician," said a cigarette, "but I can add to a man's nervous troubles; I can subtract from his physical energy; I can multiply his aches and pains; and I can divide his mental powers; I can take interest from his work; and discount his chances of success."—PROF. COFFIN-NAIL.

THE PHYSIOLOGY AND CHEMISTRY OF "SKUNK WEED"

Nicotine

On the subject of *TOBACCO,* Henry H. Rusby, M.D., in "Reference Handbook of the Medical Sciences," writes the following: "So far as the physiological and medicinal actions of tobacco are concerned, the important constituent is the alkaloid NICOTINE, the percentage of which tends to increase with the temperature of the producing locality. The percentage varies from less than one to ten or twelve per cent, the latter in the strong Amazonian tobacco. *Nicotianin* is an aromatic camphor-like constituent apt to be present in greater quantity when nicotine is less abundant. Many salts of inorganic acids occur, especially potassium nitrate. The percentage of ash is very large, occasionally from twenty to twenty-five per cent. The chemical products resulting from combustion are numerous and very complex.

"Nicotine is an irritant to the mucous membrane and reflexly stimulates both the salivary and mucous secretions. It powerfully contracts the pupil and *strongly depresses the respiration, and to a less extent the circulation.* Its most prominent effects are nauseant expectoration and diaphoresis, emesis and cerebral disorder, including dizziness, disorders of vision, and headache.

HOW TOBACCO GETS INTO THE BODY

". . . When tobacco is kept in the mouth, the nicotine is absorbed by the lining membrane and carried directly into the blood. There it circulates through

the body and comes in contact with every vital organ. When tobacco is smoked, a poisonous principle called *pyridine* enters the smoke and is carried, together with nicotine, into the blood by absorption through the mouth and lungs.

THE EFFECT OF PYRIDINE

"Pyridine is very acrid and is highly irritating to mucous linings. That is the reason why smokers get redness and dryness of the lining of the mouth, throat, and larynx, accompanied by thirst. This condition is generally called 'Smoker's Sore Throat.' Sometimes small blisters appear in the mouth which by the continued irritation of this acrid oil, called pyridine, form an ulcer, finally assuming a malignant or cancerous character. . . ."

THE DEADLY CIGARETTE

The boy who smokes these filthy things,
These cigarettes, I mean,
With clothes and breath offensive, vile,
Can never be called clean.

They stunt the growth of the physique,
The brilliant eyes bedim,
Befog the mental vision, too,
For judgment, don't trust him!

If he's a servant anywhere,
This slave of cigarette,
His services cannot be the best,
His duties he forgets.

My boy, don't use these "coffin nails,"
For, surely, if you do,
You undervalue manhood's worth,
And crush your spirits, too!

Say, "No!" when first you're tempted,
Say, "No!" you surely can,
Say, "No!" to every evil;
Be first and last a man!
—Selected in *Temperance Torchlights.*

THE WILY WEED

I have walked in summer meadows
Where the sunbeams flashed and broke,
But I never saw the cattle nor the
Sheep nor horses smoke.

I have watched the birds with wonder
When the world with dew is wet,
But I never saw a robin puffing at a cigarette.

I have fished in many a river
When the sucker crop was ripe,
But I never saw a catfish puffing at a briar pipe.

Man's the only living creature that
Parades this vale of tears,
Like a blooming traction engine,
Puffing smoke from nose and ears.

If Dame Nature had intended, when
She first invented man, that he'd smoke,
She would have built him on a
Widely different plan.

She'd have fixed him with a stove pipe,
And a damper and a grate,
And he'd had a smoke consumer that
Was strictly up to date.
—From *The Brown God and His White Imp.*

WHAT TOBACCO CAN DO

Dr. Murry relates the history of three children who were seized with vomiting, vertigo, and profuse perspiration, and died in twenty-four hours with

tremors and convulsions, after having the head rubbed with a liniment made from tobacco. "The tea of twenty or thirty grains of tobacco," says Dr. Murry, "introduced into the human body for the purpose of relieving a spasm has been known repeatedly to destroy life."

Dr. M. Lauden of France says, "It is the appealing testimony of a college of physicians that twenty thousand persons in our land die annually from tobacco poison."

A member of one of the largest tobacco firms in St. Louis said recently that tobacco kills more men than alcohol.

"The Indians of our country," says the *Journal of Health*, "are well aware of its poisonous effects, and were accustomed to dipping the heads of their arrows in an oil obtained from the leaves of tobacco, which being inserted into the flesh occasioned sickness and faintings, and even convulsions and death."

Dr. Warren, of Boston, says, "not only is the common belief that tobacco is beneficial to the teeth entirely erroneous, but also that its poison and relaxing qualities are positively injurious to them. Such is the general opinion of medical men, not only in this country, but also in Europe."

W. H. Griffith, Professor of Music, in his treatise on the human voice, says: "In every case of a singer being a habitual user of the weed, a dryness of the mucous membrane is noticed, much to the detriment of the voice." He advises all who value their voice to lay it aside.

Dr. Albert L. Gihon says, "I have several times rejected candidates for admission into the Naval

Academy on account of their defective vision, who confessed to the premature use of tobacco."

"If all boys could be made to know that with every breath of cigarette smoke they inhale imbecility and exhale manhood; that they are tapping their arteries as surely as letting their life's blood out when their veins and arteries were severed and that the cigarette is a maker of invalids, criminals, and fools, not men—it ought to deter some."—HUDSON MAXIM, in *The Youth's Instructor.*

A FEW PROMINENT MEN WHO DO NOT USE TOBACCO

Ex-President Woodrow Wilson; Hon. William J. Bryan; Hon. William Taft; Hon. Chas. E. Hughes; Hon. Benj. B. Lindsey (Judge of Juvenile Court, Denver); Hon. Louis D. Brandeis (Justice of United States Supreme Court); Hon. James C. McReynolds (Justice of United States Supreme Court); Prof. David Starr Jordan; Prof. Howard A. Kelly, M.D. (Johns Hopkins University); Harvey W. Wiley, M.D., Ph.D. (Food Expert, U. S. Government); Daniel H. Kress, M.D. (Vice-President Anti-Cigarette League); P. P. Claxton (U. S. Com. of Education); Hon. Arthur Capper (Governor of Kansas); Hon. Lynn J. Frazier (Governor of North Dakota); Hon. J. Frank Hanley (ex-Governor of Indiana).

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BENJAMIN FRANKLIN'S HEALTH RULES

It is interesting to know that Benjamin Franklin, one of the greatest men of his time, a most energetic, thoughtful and truth-loving American, owed his fame and accomplishments largely to an understanding and following out of his own health rules, which were based on temperance in diet and drink. I here present some words of Franklin, which are self-explanatory:

"When about sixteen years of age, I happened to meet with a book written by one Tyron, recommending a vegetable diet. I determined to go into it. My brother, being yet unmarried, did not keep house, but boarded himself and his apprentices in another family.

"My refusing to eat flesh occasioned an inconveniency and I was frequently chid for my singularity. I made myself acquainted with Tyron's manner of preparing some of his dishes, such as boiling potatoes or rice, making hasty pudding, and a few others, and then proposed to my brother, that if he would give me, weekly, half of the money he paid for my board, I would board myself. He instantly agreed to it, and I presently found that I could save half of what he paid me.

"This was an additional fund for buying books. But I had another advantage in it. My brother and the rest going from the printing-house to their meals, I remained there alone, and despatching presently my light repast, which often was no more than a biscuit or a slice of bread, a handful of raisins or a tart from the pastry cook's, and a glass of water, had the rest of the time, until their return, for study, in which I made the greater progress from that greater quickness of head and quicker apprehension which usually attend temperance in eating and drinking."

RULES OF HEALTH AND LONG LIFE, AND TO PRESERVE FROM MALIGNANT FEVERS AND SICKNESS IN GENERAL

"Eat and drink such an exact quantity as the constitution of thy body allows of, in reference to the Service of the Mind.

"They that study much, ought not to eat so much as those that work hard, their digestion being not so good.

"The exact quantity and quality being found out, is to be kept constantly.

"Excess in all other things whatever, as well as in meat and drink, is also to be avoided.

"Youth, age and the sick require a different quantity. And so do those of contrary complexions; for that which is too much for a Phlegmatic man is not sufficient for a Choleric.

"The measure of food ought to be (as much as possibly may be) exactly proportionate to the Quality and Condition of the Stomach, because the Stomach digests it.

"That quantity that is sufficient, the Stomach can perfectly concoct and digest, and it sufficeth the due Nourishment of the Body.

"A greater quantity of some things may be eaten than of others, some being of lighter digestion. The difficulty lies in finding out an exact measure; but for Necessity, not for Pleasure, for Lust knows not where Necessity ends.

"Wouldst Thou enjoy a long life, a healthy body and vigorous mind, and be acquainted also with the wonderful works of God, labor in the first place to

bring thy appetite into subjection to reason."

RULES TO FIND OUT A FIT MEASURE OF MEAT AND DRINK

"If thou eatest so much as makes thee unfit for business, thou exceedest the due measure.

"If thou art dull and heavy after meat, it's a sign thou hast exceeded the due measure; for meat and drink ought to refresh the body, and make it cheerful, and not to dull and oppress it.

"If thou findest these ill Symptoms, consider whether too much meat or too much drink occasions it, or both, and abate a little, and little, till thou findest the inconveniency removed.

"Keep out of the Sight of Feasts and Banquets as much as may be; for it is more difficult to refrain good cheer, when it's present, than from the Desire of it when it is away; the like you may observe in the objects of all the other senses.

"If a man casually exceeds, let him fast the next Meal, and all may be well again, provided it be not too often done; as if he exceeded at dinner, let him refrain at supper.

"A temperate diet frees from diseases; such are seldom ill, but if they are surprised with sickness, they bear it better and recover sooner, for most distempers have their original from repletion.

"Use now and then a little exercise a quarter of an hour before meals as to swing a Weight; or swing your arms about with a small weight in each hand; to leap, or the like, for that stirs the muscles of the breast.

"A temperate diet arms the body against all ex-

ternal accidents; so that they are not easily hurt by Heat, Cold or Labor; if they at any time should be prejudiced, they are more easily cured either of wounds, dislocations, or bruises.

"A Sober Diet makes a man die without pain; it maintains the senses in Vigor; it mitigates the violence of the Passions and Affections."

FOOD ADULTERATION

FOOD PHILOSOPHY

If we could only realize that, physically speaking, we are "what we eat," we would be more interested in the important subject, food. We would use our senses of sight, smell, and taste when selecting food and would be familiar with food tests and the physiological processes of foods. From all this we would learn to eat for physical well-being, and not merely to tickle our palates and to enable food magnates to exploit us or laugh at us. Our mouths would be a door to health, strength, and beauty, rather than to misery and premature death. We would realize that eating when one is not hungry is a digestive crime.

Food bears the same relation to the body that fuel does to the locomotive. Unless proper food is supplied in correct proportions, the bodily functions are materially interfered with. It is therefore essential as well as instructive to have some knowledge of the nature, ingredients, and relative value of foodstuffs. We know so little on the subject of food, and eat so carelessly, that we are practically digging our graves with our teeth. We are becoming a race of kidney-cides; that is, we wear out our kidneys by excessive intake of food.

Proper diet in the case of certain diseases will aid in restoring persons to a normal state of health. We

should possess, therefore, a working knowledge of the functions, digestibility, and caloric value of certain foodstuffs. Persons doing muscular work should have different kinds of meals from those who do mental work or are engaged in sedentary occupations. There are foods which have a tendency to reduce the weight and some which tend to increase it. Some foods are more nourishing than others and produce more calories (heat units). These are often small in bulk or volume and cheap from an economic standpoint.

HISTORY OF FOOD ADULTERATION

We learn from *Food and Drug Control Laws*, by Samuel Jay Crumbine, M.D., in "Reference Handbook of the Medical Sciences," "England in the fourteenth century had already passed laws to prevent the adulteration of bread and wine and also of meat products. Furthermore, in 1387 several London bakers were discovered who had made holes in their molding boards and thus retained for their own use the amount of dough that these holes would hold from the amount of dough brought to them by their customers to be baked. The Lord Mayor had these thieving bakers placed in the pillory for six hours with the stolen dough tied about their necks. On another occasion, a butcher was discovered who had washed some decomposed meat with a solution of saltpeter so that it might be sold without detection of its pollution. He was tied to the stake and the putrid meat was burned under his nose.

"It is reported that a London saleswoman, in

1392, thickened the bottom of the quart measure she used with a heavy layer of pitch so as to give short measure. Punishment was given.

"Germany very early passed laws to prevent adulteration. In 1428 one Theobold Werner was found guilty of selling grossly adulterated wine; he was sentenced to a fine in cash, his entire supply of wine, with the exception of one gallon, was confiscated and emptied into the Rhine, and he was sentenced to drink at one sitting in the Court House the one gallon that was retained. . . ."

FOOD ADULTERATION "AT HOME"

In Pennsylvania a few years ago the Food and Dairy Commissioner, Levi Wells, ascertained "That chemical companies have had agents traveling regularly in the State to sell butchers chemicals for preserving meats, the favorite being apparently boric acid, which is certainly deleterious to health. The packages are labeled, telling how the chemicals are to be used on meat."

In Connecticut, the Agricultural Experiment Station, a few years ago, gave a summary of the extent to which frauds are practiced on consumers. "Of sixty-three samples of fruit-jellies, two-thirds were adulterated, not only with starch and glucose, but with aniline dye and poisonous salicylic acid. Out of forty samples of marmalades and jams only three were pure. Of forty-seven samples of beer and ale, twelve contained salicylic acid and nineteen samples of sausages and oysters were found 'embalmed' by boric acid."

A FEW CHEMICALS EMPLOYED IN ADULTERATING FOOD

Before taking up some leading phases of the important subject of adulteration in our food, it will not be out of place to mention a few of the chemicals and antiseptics employed in the adulterating processes. For this information, thanks is due to Dr. Harvey Wiley, former chemist to U. S. Dept. of Agriculture, and to other chemical investigators.

Salicylates. Artificial Salicylates contain impurities (creasotic acids) that act very injuriously upon health. Salicylates are employed mainly in articles containing sugar, namely, in jams, and preserved fruits, lime and lemon juices, syrups, cider, British wine and imported lager. Administered in fairly strong solutions, they act as an irritant on the stomach and kidneys, and sometimes cause skin eruptions.

A pamphlet, published by the Department of Agriculture at Washington, states that the use of salicylic acid as a food preservative has been forbidden by several European governments. The department found it (salicylic acid) in fifteen out of twenty samples of string beans, in ten out of twelve samples of baked beans, in twenty-four out of forty-one cases of corn, and so on.

Benzoate compounds to some extent have taken the place of salicylates, partly because salicylates can readily be detected analytically, while benzoates are not quite so easily discovered. Their antiseptic potency and perniciousness are both considered equivalent to those of the salicylates.

Boric Acid (Boracic Acid), free or in the form of borax, is the most commonly used chemical preserva-

tive for butter, cream, ham, sausages, potted meats, cured fish, and sometimes for jams and preserved fruits.

Saccharine is used (instead of sugar) in making soda water, lemonade, ginger beer, and many articles of food and drink. It is possessed of sweetness, but no nourishment, and causes indigestion.

Red Oxide of Iron or Ochra is still found in potted meats, fish sauces, and chocolates. Cocoa is often adulterated with very large proportions of starch (sago, arrowroot, etc.), to which is added red oxide of iron, in order to give the mixture the natural color of cocoa. Another adulterant is finely ground cocoa shell—a perfectly valueless material—that is admixed with cocoa of the commoner kind.

Formaldehyde in the form of 40 per cent solution under the name of *Formalin* has been used in milk, in the past. It injures the digestive processes.

Copper. Pickles and preserved peas have presented an attractive appearance owing to the presence of copper in their preserving process.

China Clay. It has been asserted that large quantities of china clay went to confectioners, and have been used to stiffen the "icing" of cake.

Arsenic. All commodities that are treated with sulphuric acid in the course of their manufacture are liable to be contaminated therewith. Thus, all acids liberated from their salts by sulphuric acid, such as phosphoric, tartaric, citric and boracic acids may be contaminated. Many other extensively used articles of human consumption, including glucose, are often found to be arsenical, while red oxide of iron is invariably so.

The chemicals used to preserve our food and drink have become a serious menace to health. The chances of thousands of invalids for recovery and for life depend many times upon their getting the purest of food. There can be no doubt that the death of many invalids is often caused by the poisons in milk, butter, and meat, poisons which have been purposely put there by farmers, grocers, and butchers in order to save trouble or avoid the risk of goods spoiling on their hands.

MEATS

Inspection. The federal meat inspection act provides for the antemortem and postmortem inspection of all animals slaughtered for foods that are shipped in interstate trade. Approximately sixty-five per cent of the animals are slaughtered in federal inspected packing establishments, which leaves thirty-five per cent slaughtered in local slaughter houses. The very fact that many animals are diseased and consequently condemned in the federal inspected slaughter houses tends to divert such diseased animals to establishments having no inspection. Hence the importance of meat inspection for all slaughtering establishments. If inspection is necessary, then let us have it done thoroughly so that no locality is missed.

Harvey D. Wiley, M.D., Ph.D., in his book, "Foods and Their Adulteration," says:

"Among cattle the most frequent organic diseases are lumpy jaw and tuberculosis. In the case of swine, one of the common diseases is trichinosis. Some of the early symptoms of this disease are diarrhœa, nausea, colic and fever; and later it is recognized by stiffness, swelling of the muscles, fever, sweat-

ing, and insomnia. In case of trichinosis, an inspection of the vital organs of the animal is not sufficient. The muscles of the swine, first and most commonly affected by trichinosis, must be examined microscopically in order to prevent infected animals being sold for food. This meat should be labeled accordingly. The consumer would thus be left to choose for himself whether to eat such meat or not. . . .

"A special distinction must be made between meat placed in cold storage for the purpose of transportation only and meat placed in cold storage to be kept for an indefinite time. Where meats are prepared for consumption by slaughter and appropriate dressing, and shipped long distances, to the consumer, the cold-storage car, ship, and warehouse becomes a necessity. Whenever meats are kept in cold storage so long as to afford the opportunity for the growth of mold, or to undergo other changes of a chemical or physical character, which distinguish them from the fresh products, they should be placed in a different class. . . .

"It seems that the cold storage system introduced of late years has increased the risk from infected meat. Before this system was introduced, diseased and dangerous meats of all kinds could be readily detected, and careful inspection by health officers minimized the risk. With the advent of cold storage methods this has been changed. When large amounts are being stored at once inspection is more difficult, and when damaged food once enters, it is practically impossible to trace its history or to recognize it later."

EXTRACTS FROM THE DAILY PRESS

1. COLORING OLEO TO DECEIVE IS FOUND ILLEGAL

Hartford, Jan. 30, 1918.—Attorney General George E. Hinman has advised Dairy Commissioner Thomas Holt that it is unlawful to color oleomargarine by any process that will make it look like butter.

2. FAKE SAUSAGE BRINGS FOOD LAW PROSECUTION

Rochester, New York, Oct. 3, 1918.—As the result of an investigation conducted here by R. A. French, Deputy Commissioner of the State Department of Agriculture, 150 violations of the food laws have been found and prosecution begun. Adulterations included bread crumbs in sausage and glue in candy.

3. KIDNEY STEW KILLS BOY; 4 ILL AND IN HOSPITAL

Mrs. Madeline Kehoe, of No. 7 East 85th Street, reported to the Third Branch Detective Bureau that her family of five had become suddenly ill after eating kidney stew for dinner and that her 13-year-old son, John, died suddenly before midnight. Assistant Medical Examiner Lhrne, after an examination ordered the body removed to the morgue.

Mrs. Kehoe, who is thirty-eight years old; her husband, Edward, who is forty-two, and their three small children were taken to Bellevue Hospital.

4. THIRTY POUNDS OF BAD MEAT THROWN FROM RESTAURANT

Proprietor Wanted Another Eating Place Investigated by Health Department

Over thirty pounds of roast beef that was in the ice box of a restaurant of this city, Bridgeport, was destroyed by order of the Health Department yesterday. This beef was in very bad shape but would have been sold to patrons of the place if C. Howard Dunbar, Chief of the Sanitation Division of the Health Department, had not appeared at the restaurant to look at some plumbing changes that he had ordered.

The wife of the proprietor stated to him that she thought other restaurants should be made to be more sanitary, mentioning one on Stratford Avenue. The inspector assured the woman that all restaurants were given the same treatment, and more than just the plumbing was looked over.

"Let me look in your ice box," said the inspector. "I guess we won't need to start with any other restaurant, we will begin right here.

"This meat is not fit to be served and I want it thrown out." Considerable wailing and objection was raised but the inspector stood like a rock and the beef was consigned to the garbage can and carted away.

A thorough going-over of the foods of this restaurant was done by Dunbar and no unfit meat was served in that place after he left yesterday. The campaign to keep the sanitation of the restaurants of the town correct and to see that only proper food is served does not cease for a moment and inspectors are visiting all hours of the day various eating places of the city.

5. NAVY FINDS TONS OF MEAT TAINTED

Officer Tells of Rejecting Hundreds of Thousands of Pounds from Wilson & Co.

New York, June 19, 1918.—Hundreds of thousands of pounds of meat furnished by Wilson & Co., Chicago packers, for use on American war ships, has been rejected because not in good condition. Captain C. S. Williams, U. S. N., testified to-day at the inquiry by the Federal Trade Commission into charges that bad meat is furnished the navy.

Capt. Williams, when asked if he had ever rejected any meat from Wilson & Company replied: "Yes, I have rejected a great many hundred thousands of pounds. One lot consisted of 300,000 pounds of smoked ham." The reason it was rejected, Captain Williams said, was because it was "Sour and Smeary."

PRINCIPAL ADULTERATIONS OF MIXED AND POTTED MEATS

Starch being abundant, cheap, and a great profit-producer becomes the chief adulterizing material. It appears particularly in sausage and prepared meats. Starch increases not only the bulk and weight of goods, but it prevents undue shrinkage in the process of cooking. Other preservatives used are borax, boric acid, sulphite of soda and benzoic acid. Dyes are frequently used for coloring sausages and other minced meats.

Canned Sausage should have "a clean bill of health" from every local inspector the same as any other meat food. There is, perhaps, more room for deception in the manufacture of sausage than in almost any other form of comminuted meat. Presumably sausage is made almost exclusively of beef and pork, but as a matter of fact much which is not eaten under its own name may be found in sausage.

FISH

In those countries where fish is the chief form of animal food there arises not infrequently severe outbreaks of acute poisoning. In our country poisoning from canned fish has been repeatedly observed. As in the case of meat, fish may become poisonous, either as a result of being diseased or from being improperly preserved.

On the subject of *Poisonous Fish*, in "Reference Handbook of the Medical Sciences," Dr. Frederick G. Novy, of the University of Michigan, says, in part:

"It is well to remember that some fish are always poisonous either as the result of the presence of poisonous glands or as a result of eating certain kinds of food, while others may become poisonous during the spawning season.

"Epidemic diseases among fish have been observed by a number of investigators. Sieber, in 1895, found that the fish in an aquarium, from which some had been taken to supply a table and had proven poisonous, were sick and that as many as thirty died within the next two days.

"Arustamoff, in 1891, observed eleven cases of fish poisoning, five of which proved fatal. Ballard reported fatal poisoning following the use of canned salmon. The can was blown and the contents were partially decomposed. The one who ate last became ill in about twelve hours and died in five days, while three others recovered."

MARKETING OF FISH AND COLD STORAGE

Cold storage injuriously affects the quality of fish. Dangerous and sometimes fatal results may follow the eating of spoiled fish.

Adulteration of salmon, from canning an inferior grade or even a different kind of fish under the name

of a better species, has been a common thing in the past. The deception is also practiced in the packing and selling of sardines.

Oysters. A great deal can be advised concerning the propagation, age, size, cultivation, shipping, floating and adulteration of oysters, especially when canned. An old commercial scheme in the oyster business is to soak them in water in order to swell them and make them appear larger. The chief adulterants of oysters are formaldehyde and boric acid.

SARDINES

You may be surprised to learn that small herring along the coast of Maine are put up as sardines, despite the fact that they are different from real sardines in many respects. In packing sardines, olive oil is usually employed, although some prefer to heat the fish in peanut oil, claiming that it gives them a better color. In reality this is done because the peanut oil is cheaper. Do not forget that there are various grades of olive oil, and we do not always get the best. Some of the substitutes for olive oils usually employed are cotton seed oil, peanut oil and sesane oil.

VEGETARIANISM

The more one studies the subject of food, especially the adulteration of foods, the more he will discard meat as a food. The more familiar one is with the history of food adulteration, the chemicals employed in adulterating foods, inspection of meats, methods of preserving meats, cold storage, diseases

of cattle, canned meats, potted meats, sausage, adulteration of lard and the like, the less will he care for meat.

The question sometimes arises: Can we live without meat? The writer believes that we can live cleaner, healthier, and longer without it than with it. There would undoubtedly be less disease in this world if the human race did not eat animal flesh. We now know that we need less protein (muscle builders) than was formerly thought necessary; that a diet too rich in protein is harmful. We must not forget that many foods of vegetable origin contain a reasonable amount of protein and that a few of them contain a rather large amount. We are therefore able to understand the claim of the vegetarian that we can live entirely without meat, and yet nourish and sustain a good, clean, and healthy life.

By a proper balancing of food, thousands of vegetarians live, and live well, on a meatless diet. Some of our greatest scientists, artists, and thinkers have been and are vegetarians. Many athletes avoid animal food for a long time previous to a contest. And in almost every long-distance race, where endurance is the test, and where both vegetarians and meat eaters have participated, the vegetarians have been the winners.

Dr. B. Liber, in "Talks on Rational Living," says:

"The average man has a vague idea that meat is indispensable for his welfare, because his body is largely composed of flesh and muscles. This ancient belief clings obstinately in the minds of the people and is difficult to eradicate. The meat eater will not understand that his body is able to take material for the formation of muscles from other food than meat. And still it should not be difficult to take the example

of those large, powerful, resisting, enduring, muscular animals like the horse, steer, camel, and elephant, that use vegetable food only.

"It may be true that vegetable food as a whole is more difficult to digest than meat, because of the hard membranes of the plant cells, yet we must say that such difficulty is desirable, as it keeps the digestive organs in good working condition. That is one of the reasons why constipation, with all its complications, is rarely among vegetarians. The final result of a meat diet is often disastrous because of the harmful residue originating from the meat.

"Some physicians, not having tried a vegetarian diet themselves, dissuade their patients from it. Even they must recognize that a number of chronic cases which shorten our existence after making it miserable for some time, are attributed by most medical writers to meat eating."

From "The Folly of Meat-Eating," by O. Carque, we quote:

"The idea that meat contains some nourishing ingredients which cannot be found in plant foods is entirely erroneous. On the other hand, we find in plant foods such as fruits, nuts, and vegetables in their endless variety the needs of our body, especially the organic salts in far larger proportions and in a much purer form than in flesh foods. Furthermore, meat lacks the subtle, imponderable, vitalizing principles of the products of the soil, which are ripened directly by the enlivening rays of the sun.

"There is a considerable amount of sodium, calcium, iron, sulphur and magnesium in fruits while they are somewhat deficient of chlorine, which is principally contained in vegetables. Fresh fruits and vegetables are therefore indispensable for our system; they must always form the larger part of our bill of fare. The high amount of potassium in fruits and vegetables is explained by the circumstance that it serves as a base for the needful antiseptic fruit acids and in this combination the element has quite a different character than in other foods. Nuts, legumes, and cereals which have an abundance of protein, furnish especially, magnesium, an element giving our bones a certain flexibility making them less fragile. Nuts contain on an average, fifty percent of fat and are the most nutritious products of nature."

Science has proven undoubtedly that, anatomically and physiologically, man is so built that he can easily get along without meat. Let any one who is not prejudiced try a well-chosen vegetarian diet; look up the very long and rich list of cereals, vegetables, fruits and nuts with their infinite varieties. Let him also find out the many ways they can be eaten raw, the many more ways they can be prepared; let him combine them properly and he will seldom, if ever, return to meat.

EGGS—FRESH AND OTHERWISE

The average cold storage egg is more than six months old. At this age, the eggs have lost their original wholesomeness. As such, eggs are largely used for baking purposes and escape detection by the consumer. Eventually they are eaten in the form of cake, pies and pastry by the would-be objector to such eggs, the only difference being that now he pays more for the same eggs and they are older than when he first rejected them. It is as if the cold storage egg said, "You will eat me eventually, Mr. Helpless Consumer, why not now?"

The real story of the preservation of eggs, broken, and dried, and egg substitutes is the story of American dyspepsia. (The egg business seems to be a kind of "second cousin" to the meat business.) For the broken egg business, the eggs are collected, broken; then mixed together in containers, often as large as barrels, and preserved with borax or other preserving agents. The eggs are generally kept from three to eight or nine months, and then sold. How do we know that a stale, broken, spotted, sickly

looking egg did not find its way into this tank, barrel or tin can?

MILK AND PASTEURIZATION

A veterinary surgeon should examine cows at regular intervals, and be especially on the lookout for the tuberculosis to which any cow is subject. As to the manner of examining and testing the cows, by the injection of a serum (tuberculin test), to ascertain whether or not the animal has tuberculosis, many sanitarians differ. Some experts believe that this method pollutes the cow's blood, and consequently weakens the cow's power of resistance by lowering her vitality, and if anything renders her more susceptible to develop this disease. An expert veterinary can, within reasonable time, by means of physical diagnosis find out the physical condition of the cow, without inoculating serums, or any other artificial substance.

Pasteurizing milk means heating it to a temperature of about 140 to 160 degrees Fahrenheit. Most hygienists are agreed that pasteurized milk is inferior to natural milk. There is no need of pasteurizing unless it seems necessary to keep it a long time. The *cow herself* is the best pasteurizing agency. A clean thing does not have to be cleaned. It is *filth* that needs cleaning, boiling, scrubbing, or pasteurizing. The best way to guarantee pure milk, is to see that you get it from a healthy cow. A healthy cow is the result of properly ventilated, clean stables, pure water, good and wholesome food, and exercise. This is the natural way.

It is a disputed question among modern dietitians,

whether or not milk of the cow should serve as a food for man. An infant's digestive apparatus is better adapted to the proper digestion of milk than that of an adult's. When milk enters the stomach of an infant, it easily enters the intestines where it is digested. In the adult stomach, which secretes more acid, and gastric juice, milk forms large, tough curds, which are not easily digested. Babies should be fed on mother's milk in preference to any other. After all, cow's milk is a splendid food for calves, but not for human beings. Curds formed by cow's milk are entirely different from those of human milk and are adapted only for the particular digestive apparatus of the calf. It would seem that nature has provided milk in the cow for the benefit of her offspring only.

BUTTER

The practice of artificially coloring butter, usually with coal tar (anilin) dyes is not conducive to health or strength. Were butter made for purposes of consumption instead of profit, there would be no need of an artificially colored substance. The truth is, the natural color of butter is more attractive than the artificial. But we are so accustomed to artificial foods, that we can hardly value the natural products.

OLEOMARGARINE

Years ago, artificially colored oleomargarines, resembling butter, paid an internal revenue tax of ten cents per pound. Uncolored oleomargarine paid a revenue of only one-fourth cent per pound. Apparently then it paid the manufacturer to pay the dif-

ference of 9¾ cents per pound for artificially colored oleomargarine.

Some writers on the subject believe that oleomargarine can be made under sanitary conditions, from sanitary raw materials, and in such cases prove wholesome and nutritious. We doubt whether "it would pay" the manufacturer to be "so particular" about his selling products. Oleomargarine will be sold as long as ignorance and poverty exist. Poor people cannot afford pure butter, and ignorant people of course would not know the difference if they had substitutes in them. Even rich people use oleomargarine as a result of the skillful advertising campaigns inaugurated by the manufacturers.

JAMS, JELLIES, AND PRESERVES

The practice of using immature, waste, partially deformed or decayed fruit for the preparation of jams, jellies and preserves cannot be too strongly condemned. Dr. Harvey D. Wiley gives us some more interesting statistics:

"Fifty-eight samples of *jams* which proved to be adulterated were bought on the open market by the Bureau of Chemistry, none of which bore any label or description indicating that it was an adulterated article. The quantity of sulphate and chloride in the samples is always very considerably increased over that of the natural product. In two samples the alleged jam contained no fruit product whatever. In many cases, more than 70% was found and in one instance as high as 76%. In a great majority of the cases the glucose is approximately one-half

of the whole weight of the jam. Artificial coloring matter was present in almost every case."

Our only excuse for buying these is that they "taste so good."

CANNED VEGETABLES

We have little use for any of the canned foods. We do not mean to insinuate that all canned foods are bad. They have some function, serve some need in all probability, but so long as there are plenty of fresh vegetables in existence, for *all* the people, why should we *can* them, *preserve* them, or put them in *storage?* Wholesome, domestic preserving of food *without* the use of artificial coloring matter or chemicals should be encouraged.

Starch and saccharin have formed leading adulterants in canned corn. Why should the poor consumer be irritated with saccharin poison or starch, when he can live happier without it? If he needs any chemical like saccharin, let him take it under the direction of a physician, and not at the profitable whims and fancies of the manufacturer. One must also be on the lookout for souring and swelling of these canned products. The tin can becomes an important factor.

In *canned peas* we meet with sulphate of copper as the principal form of adulteration. The purpose of copper compound is to produce a green color. Although copper has not been used much in our country, yet it has had its day. Saccharin is largely used to imitate the natural sweetness of the pea.

CANNED FRUITS

Canned Tomatoes undergo practically the same process as canned corn. Only fresh, ripe, and sound tomatoes should be used in the preparation of the canned goods. Who said that "a spoiled" tomato ever made its way to the can? Perish the thought!

In the case of canned cherries, canned peaches, and other such canned goods, one of the chief dangers is the galvanic action which the cherry or peach juice sets up in the tin, which tends to bleach their natural color and also to produce poisonous salts of tin and lead from the contents of the can.

Fruit Syrups have not been free from adulteration. The chemicals usually employed in the preserving of fruit syrups are salicylic and benzoic acids. Most persons who frequent the "soda fount" do not think of the adulterations they have to swallow. And then they wonder why their stomachs sometimes revolt.

FRUITS

THE APPLE, sometimes termed "The King of Fruits," is one of the principal fruits on the market. The greatest damage to which the apple is subjected is the ravage of insects, for which antiseptic sprays have been applied. When eating raw apples, one should remove the peeling.

Many a banana never yellowed on the tree where it grew. Oranges are sometimes sweated into maturity. No wonder the people "sweat" (as a result of eating them) later.

ARTIFICIAL COLORING

Artificial coloring has not as yet outlived its use-

fulness. Apparently some canners believe that a little coloring matter, now and then, is good for our health,—an invigorating stomach tonic, as it were!

Tomato Ketchup is supposed to consist of the pulp of sound, ripe tomatoes mixed with various condimental substances and flavoring agents. I should not swear that every tomato that is converted into a little tomato ketchup is one-hundred-per-cent ripe and wholesome.

It has been said that coloring matter is used in the manufacture of tomato ketchup; that unripe tomatoes are at certain times cooked in large quantities, treated with benzoic acid, and stored away in large containers, until the canning season is over, after which this material is made into ketchup and artificially colored. How true this is, the writer does not know, but judging from what has been done in other lines of food, this would not be surprising.

SUGAR

In some countries white sugars have been adulterated with terra alba (either ground silicate, ground gypsum, or ground chalk) and white flour. Sometimes sulphurous acid may adhere to the finished product as a result of its use in the clarifying process. Marine blue sometimes attached itself to sugar crystals, when bluing is used in the manufacture. Salts of tin have been used in washing sugar granule. Dextrose made from starch (starch sugar) has been mixed with sugar.

On the subject of *Sugar* Alfred McCann, food expert, very interestingly writes in *Physical Culture* (February, 1918):—

"Sugar became popular because, as our mothers and grandmothers knew it, there was good reason for using it generously. Not only was it far more flavorful, it was incomparably more nutritious than the refined products of modern times, upon which we are gorging ourselves at the expense of teeth, blood, bone and tissue.

"Twenty-five years ago, old-fashioned brown sugar manufactured on the sugar cane plantation, was in common use. Such sugar possessed not only all the sweetness of the cane, but also all of its aromatic and nutritive substances, including mineral salts, which are no longer present.

"In the old days when Louisiana was producing brown sugar, and when the West Indies manufactured the same clean and wholesome article, the refiners, grasping at ways and means of earning greater profits, conceived the idea that if they could prejudice the people against brown sugar, nobody would buy it. So they started to drive out of the American market all the old-fashioned brown sugar then made on the cane plantations. To kill off the demand, it was necessary to disgust the people with all brown sugar. To accomplish this, they inaugurated one of the most violent advertising campaigns ever witnessed in this country. In 1898 they were ready to 'educate' the public, and educate it they did. Their advertisements consisted of an attack upon brown sugar. Each one was accompanied by a picture, said to be an enlarged photograph of a dreadful looking animal described as a cross between a louse and a lizard. One of the advertisements, which I

quote word for word from the *Congressional Record*, reads as follows:—

"'Professor Cameron, public analyst of the city of Dublin, who has examined samples of raw sugar, states that it contains great numbers of disgusting insects, which produce a disgusting disease. The shape of these insects is very accurately shown in the accompanying photographs, magnified two hundred diameters. It is a formidably organized, exceedingly ugly little animal. From its oval-shaped body stretches forth a proboscis terminating in a kind of scissors, with which it seizes upon its food. The number of these creatures found in raw sugar is sometimes exceedingly great and in no instance is raw sugar quite free from either the insects or their eggs. Brown sugar should never be used. It is fortunate, however, to note that these terrible creatures do not occur in refined sugar of any quality. Use only refined sugar.'

"Our grandmothers were horrified. Wherever they looked they saw a picture of the louse-lizard monster. They saw the dreadful creature in all their desserts and dainties and so the brown sugar industry, as far as the housewife was concerned, was completely destroyed."

CONCLUDING REMARKS

It is hoped that this brief discussion of facts and views on the subject "Food Adulterations" will stimulate interest in and thought on this vital problem. The reader may secure more details and interesting facts on the subject by writing to the United States Department of Agriculture. For further study of the subject I should refer the reader to the following:

"Foods and Their Adulterations," by Harvey J. Wiley, Ph.D., M.D. (Blakiston).

"The Science of Eating," by Alfred W. McCann (Doran).

Food and Drug Control Laws (an article), by S. J. Crumbine, M.D., in "Reference Handbook of the Medical Sciences."

Food Poisons (an article), by Frederick G. Novy, M.D., in "Reference Handbook of the Medical Sciences."

"Diet, the Way to Health," by R. Swinburne Clymer, M.D. (Quakertown, Pa.).

FASTING

The term *fasting* may be defined as the voluntary abstinence from ingesting food. In other words, it is the voluntary depriving of one's self of food for an unusual length of time. The terms "fasting," "starvation" and "inanition" are sometimes confused. *Starvation* may be defined as an involuntary condition, in which abstinence from food exists, which if continued will result in death. Chronic starvation is the phrase applied to a physiological condition, resulting from a long period of involuntary deprivation of food. Many such cases may be found in most industrial centers of the earth, especially after workers have been out of employment a long time. *Inanition* is a pathological or diseased condition of the body, characterized by inability to assimilate or appropriate food. Cancer or certain mechanical obstructions of the digestive tract, for example, may destroy one's ability to receive and retain food in either solid or liquid form.

Students of hygiene and applied physiology learn among other things, that health and happiness thrive most, when and where auto-intoxication (self-accumulating of toxins or waste-matter in the body) exists least, or is at a minimum; and further that *fasting* is an ideal eliminator of accumulated end-products or toxins, as well as a general restorative. That is the scientific reason for the voluntary absti-

nence of food as a health measure that we commonly term fasting.

Hippocrates, the "father" of medicine, said: "Our diet should consist of remedies, and our remedies should be our diet." If the human family would only learn to eat for efficiency, strength, health and longevity, instead of eating in worship of their bodies, what a wholesome and better world we would all be living in! Under such circumstances fasting would seldom be necessary. We make cemeteries and junk shops of our betrayed, ignored stomachs. We are gluttons, and for that reason there are so many diseased conditions and high mortality rates.

It is true that thousands of people have not enough to eat, yet, as a nation, we eat too much. Those who have enough usually overeat. We could live on one-half of what we eat. Social indolence not only permits thousands to die prematurely because of malnutrition and undernourishment, but it also kills thousands by over-feeding, over-drinking, under-working, under-thinking, over-sleeping and under-sleeping them.

Fasting is instinctively practiced by the lower animals living in their natural state, when they become ill. After studying the subject of fasting, without prejudice, one learns that fasting, for a reasonable length of time, is a wonderful means of conserving the vital powers of an individual, of correcting conditions of disordered nutrition and assimilation, of increasing the activity of all the eliminative organs, of stimulating circulation of the fluids of the body, and of acting as a tonic to the nervous system.

Fasting is undoubtedly a curative agent because it purifies our interior mechanism when it increases action on the part of the eliminative organs, such as the kidneys, skin, bowels, and lungs, and also, because it gives a needed vacation to the over-worked digestive and assimilative organs. Of course, water may always be taken in moderate quantities, as it assists nature in dissolving and eliminating the waste matter that we accumulate in our systems from adulterated food, impure water, smoke and dust.

What we have become accustomed to look upon as "nourishment" is in reality the means or source of auto-intoxication from which most people suffer to-day, a condition which manifests itself in the form of constipation, headaches, difficult breathing, bad taste in the mouth, decayed teeth and the like. Take for example any fever case: You will notice that the patient does not want to eat. He craves water merely. Why? Because nature by means of this fever is already trying to eliminate the waste accumulated in the system. This fever is the oxidizing or burning-up method nature employs. While this process continues the individual in whom this incineration is going on, abhors food and rightly so. While he is fasting, nature rids him of the poisons and he soon recovers. Nature always comes to our rescue, if we do not interfere with her. But, strange as it may seem, the first thing the "innocent bystander" (mother or wife) will ask, is, "Doctor, what shall he eat?" You see, we are a race of stomach worshipers. We do not stop to think—we do not employ will power. Instead of mother or the kind neighbor telling the patient "He looks better,"

or "Do not eat if not hungry," or "Give nature a chance," she will worry the patient with, "Oh, my! why don't you eat?" and, "Are you going to let the doctor starve you?"

Weak people should not fast more than a few days at a time when commencing unless they are under the care of an expert. Sometimes a little lemon juice or orange juice is permissible.

There are patients for whom fasting cannot and should not be prescribed, as anemic persons, but, with most people, especially those of robust and adipose dispositions, fasting occasionally will be a wonderful restorative to the physical, mental, and psychic system.

BATHING AND SWIMMING

Just as uncleanliness is the parent of so-called "contagious" disease, so is cleanliness a preventive of disease. *Internal* cleanliness is as important if not more important than external cleanliness.

The skin is an eliminative as well as protective organ, having for its function, through its system of little sewers or pores, the throwing out from the blood stream about one-half of its accumulated impurities. The important rôle of the skin in maintaining health is evident when we learn that there are over twenty miles of perspiratory tubes engaged in the elimination of waste matter.

The uncleanly accumulation of dirt on the skin is probably as injurious to the health as is constipation of the intestines or suppression of the urinary functions of the kidneys. The skin as well as the kidney and intestinal organs if properly cared for will constantly rid us of toxic material that the body cannot utilize. When the little pores of the skin become clogged nature will sometimes throw out effete matter, in the form of pimples, boils, carbuncles and ulcers.

Bathing not only implies a cleaning of the body or certain portions of it, but also the application of water in such a manner as to tone the nervous system and aid the organs of secretion. Not only the hygienic influence of water should be desired, but

what is more—its curative effects. Baths are of several kinds. Among the many kinds of baths may be mentioned the cool, temperate, cold, tepid, warm, hot air, electric, sea, Russian, Turkish, vapor, sponge, douche, head, foot and medicated.

A Cold Bath taken at a temperature of from 40° to 60° F. is employed for its tonic effects. To obtain the best results no one should remain in it more than three or four minutes, otherwise the reaction is slow and its effects injurious. The colder the water the less time one should spend in it. Those who have a low standard of vitality should prefer a cool bath, from 60° to 75° F. instead.

A Tepid Bath taken at a temperature of from 80° to 92° F. is usually employed for its cleansing effects. That inflammatory and feverish conditions are reduced by a tepid bath is proof of its cooling effects. It seems to regulate one's temperature and to aid the skin in its process of excretion.

A Hot Bath taken at a temperature of from 100° to 110° F. is a very good stimulant. The secretive organs become constricted and perspiration and languor follows later. A warm bath, from 90° to 100° F. should be preferred by those whose vitality will not justify a hot bath. It is very soothing, as it equalizes the circulation and removes impurities, and does not weaken one as a hot bath sometimes does.

A Turkish Bath is a hot-air, dry bath. The bathing process consists of going from one room to another, each being of a higher temperature than the preceding room. Then, a thorough massage is given followed by cooling the body and invigorating it by a shower bath and a cold "sponge." A Turkish

bath is a wonderful health producing agency. Almost everybody should take one occasionally for it aids materially and has no weakening effects. By means of it, the muscular and glandular systems of the body are stimulated, thus equalizing the circulation. In spite of a Turkish bath being such a wonderful curative and health agent, it is strange that most people never have seen a Turkish bath; and some do not even know such an "animal" exists. They will spend many a hard earned dollar on cheap, harmful patent medicines for their "rheumatism," and yet will keep on, daily, eating meats, drinking booze, avoiding exercise, shunning a Turkish bath, for fear they may get wet, and it may require a little effort on their own part. Oh! inconsistency, thou art prevalent among us! Thou hast apparently made thy permanent abode among the children of men!

A Sea Bath, or *Sea Bathing*, is a wonderful tonic to those who are debilitated or have certain chronic ailments. It is not only a remedial agent for the weak and sick but is equally valuable for the strong and healthy. No one should creep or step cringingly into the water. It is this fear, the slow movement and lowering of the temperature that drives the blood to the head, causing chills and other physical harm, which are sometimes attributed to the bathing, instead of to the fear and weakness of the would-be bather.

The duration of a sea-bath, at first, should not exceed four or five minutes. The most robust should not take more than one bath a day. Before breakfast is the ideal time for a bath,—never soon

after a meal. After emerging from the bath, the bather should be thoroughly dried and dressed and have moderate exercise to induce wholesome reaction. The sea bath, in conjunction with the influences of the pure air, different diet, change of scenery with relief from mental strain, and exercise, constitutes "a real vacation."

Swimming is among the most beneficial forms of exercise. It develops the muscles, stimulates the glandular system to wholesome activity, works off excess weight in the stout, builds tissue in the lean and promotes circulation in every one. Swimming is always preferable to mere bathing. Many people are injured by their "touch-me-not" bathing who would benefit by swimming. No swimmer, no matter how expert, should be in the water more than fifteen or twenty minutes. Five minutes at a time would be the best. Those who remain in the water, continuously for thirty, forty or more minutes are generally the ones who either die suddenly or become ill and then blame it on the ocean or sea, instead of on their own lack of knowledge of physiology and the principle that excess is the thing that harms.

There are various *medicated baths* such as the *acid*, *alkaline*, *sulphur* and *iodine* baths which are serviceable at times. The Sitz and foot bath are of unusual benefit in many cases. Even the wet sheet pack and general hot fomentations have relieved congestion and inflammation over local areas.

The subject of bathing and the scientific application of water is a very important one and should be studied more thoroughly by those who believe in natural living as an aid to health.

EXERCISE AND DANCING

How many people understand the influence of exercise on the body? How many know the difference between gymnastic exercise and calisthenics? How many exercise daily and do so properly? How many, for example, walk five or ten miles daily, or occasionally for health's sake? How many breathe deeply and rhythmically? How many breathe through their nostrils? The average business person is "too busy" for such an "insignificant" matter as exercise. Making money is his aim and God, although he may not live long enough to enjoy it. The nerve force he yields in scheming to accumulate wealth exhausts his vitality, making him a pauper, physically speaking.

There is no man or woman so busy that he or she cannot find at least five minutes' time for physical education or physical training every day. What good are all our learning, accumulated riches, and honors, if because we do not take care of our bodies, we suffer and die before our time? What are "epidemics" if not the inevitable expression of nature, or her "periodic house-cleaning" because of lack of proper exercise, negligence or debauchery in general?

Good physical development is a thing that can be acquired in almost every case by intelligent, continuous training. The measure of one's development is determined largely by the amount of effort

exerted in acquiring it. It requires strength to develop strength. Unused muscles do not grow.

Exercise does many definite things for our bodies. It modifies the action of the heart, increases bodily heat, promotes the appetite and stimulates the assimilative processes. Systematic exercise normalizes the blood pressure, as it does all other bodily functions. Exercise will cause an increase of oxygen in the lungs, carrying off in return carbon dioxide gas and other such accumulated waste which the body cannot utilize. Sedentary habits and neglect of exercise will favor the narrow and hollow chest. Active muscular exercise assists in the process of digestion, whereas indigestion is largely due to inertia or inactivity of the stomach muscles. Exercise further assists the eliminative organs to throw off waste from the system rapidly and thoroughly and helps in developing bone and ligaments. Exercise of the mind is very essential, as is exercise of the will, which when strengthened coöperates with self-control, man's intellectual and moral qualities.

There is, however, the danger of exhausting the muscles by excessive exercise, which as a rule impairs nutrition, materially. Excess in all things does harm. If the right amount of exercise be taken, it aids in developing efficiency, strength, promptness and tirelessness.

DANCING

Next to proper and sufficient walking and breathing, one of the best exercises is dancing. From time immemorial dancing has been man's outward sign of joy expressed in graceful motion, in time with

music played on any instrument. Dancing is a most effective exercise for health, grace and charm. Vulgarity, in the name of dancing, should not be permitted, but dancing in the artistic sense or as exercise develops nerve and muscles, promotes circulation of blood and assists the breathing organs to function more fully.

Outdoor dancing should be more practiced than it is to-day. It may not be so "elegant" as that accomplished on the glossy ballroom floor but it is more conducive to health.

The thoughtful reader will appreciate the importance of studying exercise, and then practicing it, especially gymnastic exercise and calisthenics, which include the use of various rings and bars, dumb-bells, Indian clubs, and the like. The study of recreative exercises, sports, and outdoor pastimes are very interesting. They include such natural activities as rowing, swimming, dancing, roller-skating, bicycling, riding, cricket, and out-door games in general.

SLEEP AND SLEEPLESSNESS

How many people have studied the physiology of sleep? Some people sleep most of their lives away, and some people are asleep even when they believe themselves to be awake!

What is sleep? Sleep is a period of rest for the body and mind, during which volition and consciousness are in partial or complete abeyance and the bodily functions partially suspended. In all the higher animals, the central nervous system enters once at least in the twenty-four hours into the condition of rest, which we call sleep. As to the cause of this we know nothing definite, except that sleep is due to a fall of general arterial pressure accompanied by a diminution of the quantity of blood passing through the brain.

The purpose of sleep is to recuperate, renew, and renovate our bodily forces, so as to restore them to normal tone, as much as possible. Relaxation of the tense muscles and rest of brain and nerve cells are nature's intent by means of sleep. Abuse of sleep is quite as injurious, and may be more injurious, than too little sleep. Sleep means inactivity, and inactivity enfeebles. Nature requires that all our bodily organs should be exercised in order to develop. We can do without food for days and weeks, but cannot get along without sleep for that length of time. No sleep or rest for forty-eight hours will exhaust the average "strong" man.

It is a remarkable fact that almost all the great geniuses of the world managed to get along with very little sleep. It is said that Napoleon rarely slept over five hours; Benjamin Franklin, Sir Isaac Newton, Goethe, Humboldt, Edison and numerous others are examples of men with great powers of endurance with but little sleep. They combated the feeling of drowsiness or sleepiness as an enemy to be overcome. However, most people are too busy making ends meet, to be geniuses in this respect. To fight off sleep may be well for the one who does mainly mental work (although mental work is physical work also), and for one who does not have to "punch the clock" on time; but it will not hold good for the one who does manual work six or eight hours daily, or for the average person who is subject to the "eternal grind."

NATURAL MEASURES FOR SLEEPLESSNESS

Numerable cures for insomnia (inability to sleep) have been suggested, some good, most of them bad. Opiates and drugging are dangerous habits, no matter how good the intention. It is much better to follow some natural method, and here are a few:

(a) One of the simplest and best means for inducing sleep is to arise, and standing straight, rise on tiptoe to the fullest height a number of times in rapid succession until one feels the blood coming into the calf of the leg. Then lie down composed and begin long, quick breathing, and in most cases, sleep will follow quickly. This process draws the blood away from the head and is a good natural method even if you are too lazy to try it.

(b) A hot bath has often proven highly beneficial. In getting out of the bath, however, the greatest care must be taken to avoid chilling the body. The patient should first be wrapped in a Turkish sheet and gently dried, then immediately put into bed.

(c) A warm foot bath (with or without powdered mustard) may be taken before retiring.

(d) The patients' habits should be regulated, especially his bowels. Those who do sedentary work should take reasonable exercise in the open air before retiring. The evening meal should be a light one; and if for some reason, one believes it best to eat "something" before retiring, let it be fresh fruit, such as apples, grapes, pears, peaches and the like; drink plenty of water, cold or hot.

(e) If you are a "heavy" meat eater, either reduce your consumption of meat or eliminate it from your diet entirely.

(f) If you are addicted to the use of tea and coffee (which are medicines) you should eliminate them, unless your doctor insists upon your drinking them, and even then only in the dosage the doctor has prescribed.

(g) Be out of doors and sleep out of doors as much as possible.

(h) Avoid excitement before going to bed. (It is not bad advice for the daytime either.) Excitement generates toxins or waste in the system, which irritate and interfere with normal circulation, thinking and sleeping.

(i) Avoid "angel beds," that is, feather mattresses and pillows and a great deal of heavy covering. If

one medium weight blanket is not sufficient, keep a hot bottle to the feet for a few minutes.

(j) The bedroom should be roomy and well ventilated; draperies should be conspicuous by their absence; the bed covering should be clean and not too heavy; carpets should be banished, and loose rugs, frequently aired and shaken, should take their place. The mattress should be neither hard nor soft, and the walls should be covered with paint or calcimine, never with paper.

The habit of sleeping in any one position causes tendency to congestion on that side. It is much better to lie on the stomach or on the right side and on the left side in succession, and sometimes stretched out full length and at other times curled up as nearly like a ball as seems restful. These methods are only suggestive and therefore in severe cases of insomnia, a doctor should be consulted.

AMOUNT OF SLEEP NEEDED

The amount of sleep necessary to recuperate the system without causing degeneration or enfeebling of any organs varies with the age and habits of life of the individual. The infant during its first six months should sleep about twenty hours daily. This period should gradually lessen until at two years of age, the child should not exceed sixteen or seventeen hours of sleep daily. Between this and the fourth year, fourteen hours is abundant, while between the fourth and ninth year, time should be reduced to twelve hours or less. From this period to fifteen or seventeen years ten hours' sleep is considered essen-

tial. After this, during life, eight hours' sleep is almost universally considered as the safe period that may be devoted to slumber daily. The prevailing notion that one needs more sleep after the age of fifty or sixty years of age meets with but little favor. During sickness or convalescence, longer hours of sleep may be necessary. Regular periods for sleeping are very beneficial while irregular hours are extremely hurtful.

HOW TO INCREASE WEIGHT

GOOD DIGESTION

One of the first requirements for obtaining an increase of weight or becoming plump, as some would prefer terming it, is to have a good stomach. In other words: the digestive and assimilative organs should be normal. One should see to it also, that the eliminative organs function properly; that he breathes through the nostrils instead of the mouth; that he bathes often and relaxes or rests sufficiently.

SLEEP

Sufficient rest and sleep must not be neglected. Do not take your cares, worries, responsibilities and grievances to bed with you. Lay them aside. Try to read or study something that will produce laughter or a good mood prior to retiring. Resort to a comic phonograph record if that is conducive to relaxation and rest. Eat some appetizing fruit before retiring.

MEALS

Meals should be eaten at regular times, and a substantial quantity should be consumed; but nobody should ever eat to excess or when not hungry. Most of the meals should consist of fats, starches, sweets and plenty of fruits. Aim for those foods that are nutritious rather than bulky, though bulk assists the digestive processes. Acid fruits and acid foods

should be avoided. Plenty of bread, peanut butter, potatoes, and oatmeal should be consumed. As vegetables are very wholesome and fattening, they should form the chief diet. Meats are unnecessary as a factor in producing weight. Condiments, spices and other stimulants should not be taken unless in a very mild form. Vegetable soups are appetizing and wholesome, and therefore should get first rank on the menu.

DRINKS

"Adam's Ale," or pure water, is the best drink on earth. Drink plenty of it before and between meals, but not *during* meals, except a sufficient quantity merely to quench the thirst. Plenty of water in the morning as an "eye opener" is excellent practice. Cold water should never be drunk suddenly as it chills the stomach. Ice-water should never be taken under any circumstances. The water may be kept near ice or surrounded by ice but ice should not be in the water.

EXERCISE

Exercise should never be neglected, but it should be regularly taken and moderately. Most exercise should be taken before breakfast and before retiring.

SUMMARY

In order to gain weight, or become plump, one should eat plenty of nourishing, yet fattening foods; have plenty of relaxation and sleep; drink plenty of water; take moderate exercise, keep cheerful, and maintain a determination to do what one knows is best to gain the desired weight.

OVERWEIGHT AND ITS REDUCTION

There is an old saying, "Nobody loves a fat man." This saying could read more correctly, "Nobody loves a fat man (or fat woman) less than he does himself." Overweight or obesity is in itself a disease, which is usually continued or nourished by gluttony or negligence. Unbiased thought and investigation of the subject will soon reveal that obesity or being "blessed" with an excessive quantity of fatty layers in the abdominal or other portions of the body, is not only unsightly, but is an enemy to health and efficiency; in fact, overweight shortens life. It is a well-known fact that lean persons undergoing surgical operations succumb less to shock and other complications resulting from the operation or anesthetic, than do fat people under the same circumstances. In fact, life insurance companies will not always insure those who are abnormal in weight, and rightfully so.

It is interesting as well as instructive, on this very item, to note the experience of 43 American Life Insurance Companies, embracing 186,579 policy holders and extending over a period of twenty-three years:

(Ages at Entry)	*Overweight* 25-45 *Death Rate Above Standard*	*Overweight* 50-80 *Death Rate Above Standard*
20-24	1%	3%
25-29	12%	17%
30-34	19%	34%

(Ages at Entry)	*Overweight* 25-45 *Death Rate Above Standard*	*Overweight* 50-80 *Death Rate Above Standard*
35-39	31%	55%
40-44	40%	75%
45-49	31%	51%
50-56	24%	49%
57-62	12%	38%

From the above figures, taken from the most direct and reliable sources, one cannot help concluding that even simple overweight is conducive to disease and an early grave. There are, of course, exceptions to the rule. There have been and are many fat people who have done a great deal of mental work and lived to a ripe, old age. At any rate, there is no sense in accumulating and "taking care" of a lot of fatty material, when less fat and more muscle based on exercise and proper living generally will "carry us over the bridge" with more safety. It is as necessary for one to carry around his person fifty or seventy-five pounds of grease, as it would be for a small grocer to maintain a large Packard truck for the mere delivery of a small order consisting of a dozen eggs, a pound of soda crackers and a can of sardines. Why carry around this surplusage? Why lubricate large quantities of unnecessary organic matter? How many stop to realize that the "fat folks" roast more in summer, and freeze more in winter than others?

The question arises: What is the proper weight for man or woman at a given age? The estimated average weight, at the age of between 30 and 34, of different heights are:

Height	*Males*	*Females*
5 feet	128	119
5-1	129	121
5-2	131	123
5-3	134	127
5-4	138	130
5-5	141	135
5-6	144	139
5-7	150	142
5-8	154	147
5-9	159	151
5-10	164	155
5-11	169	158
5-12	175	161
6-1	182	

REDUCTION OF WEIGHT

As to the reduction of weight in the obese, if done intelligently, and not too hastily, it is attended with no dangers; but the unreasonable or rigid, sudden and total restriction of certain accustomed foodstuffs may lead to derangements of the system. Unless the one desirous of reducing superfluous weight understands just what to do and what to refrain from doing in the way of exercise, bathing, food, he had better consult and be under the care of an expert in this important matter.

One thing above all should be kept in mind by the one desirous of reducing weight; that is, to do it in a *natural* or harmless way. Do not acquire results at the expense of vitality or health. And remember this: patience is a jewel. It must take time, if your results are to be permanent and wholesome. Do not expect ten or fifteen years of carelessness, debauchery, or malformation to be corrected in ten or fifteen

minutes, and do not expect to find results in a patent medicine, any more than you find health in a capsule. Normal weight must come from an intelligent conception of the subject, plus compliance with certain formulæ.

As to diet, remember, first of all, that we should eat to live, and not live to eat. In other words, we should eat for efficiency, health and longevity, and not merely to tickle the palate. If you are not hungry, miss a meal, for it is a digestive crime to eat when not hungry. Furthermore, nothing is more important than *chewing* the food *thoroughly* and *slowly*. We Americans are already too well known as a nation of food-gulpers. The amount of food should be measured by the pleasurable sensation it gives rather than by the amount one can "hold." It is a good idea sometimes to count how many "chews" certain food-stuffs require before swallowing them.

As to drinking water, it should be drunk *between* meals and seldom if ever, *during* meals. Sipping small quantities, however, to quench the thirst will not interfere. All soups should be eaten *before* solid foods. One or two cups of water every morning, preferably hot, and with lemon, makes an excellent "fat reducer."

As to *food*, as an aid to reduce unnecessary weight, all fat-making foods, such as fats, starches and sugars, should be reduced very materially. If one is fond of wheat bread, cut it into thin slices and toast it. Almost all garden greens are allowable. Fruits, such as apples, peaches, oranges and grapes are wholesome and harmless, while bananas, figs,

dates and nuts should be avoided or very much restricted. If meats are consumed at all, the lean portions only should be chosen.

EXERCISE

Although diet plays an important rôle, proper exercise is equally important. In many cases, exercise alone will be sufficient. Yet the exercise should be so regulated as not to permit of undue physical exertion or exhaustion which would, if continued, lead to general loss of vitality. Those with weak hearts, especially, should think of the latter. Most exercise should be taken in the open air when possible. It may consist of walking, riding, climbing or swimming. Deep rhythmic breathing, during certain exercises will help the system to oxidize some fatty material. There are, of course, no fixed rules for exercise. All depends upon the physical condition and temperament of the individual. There are a number of floor-touching movements, stooping movements, stretching movements, and other exercises that are very useful. Dumb-bell exercises and other gymnastics the reader can easily find out about just as soon as heartily interested.

Massage, or passive exercise, is a possible adjunct, but less valuable than active exercise. If massaging is resorted to at all, it should be done regularly and vigorously to produce results. Some have tried health resorts, medicinal treatment, or patent medicines. The best health resort is your own back yard, your bath room, the public park, and your will power. As to medicinal treatment, although certain medicines may be useful sometimes, if one will only bathe often,

take systematic exercise, and eat as a real human being should, there would be no need of medicine. As to the advertised patent medicines, they are absolutely useless. Moreover, they are very harmful. There is no better remedy or method than complying with nature's laws.

A word regarding sleep may not be out of place. Fat people, as a rule, are "big sleepers." Some of them fall asleep soon after a meal. Some of them are sleepy half of the time. In fact, many people are tired and sleepy even when they are awake. That is why so many think so little and let opportunity slip by them, while they are in a semi-snoozing condition. Seven hours for men and eight hours for women should usually be sufficient, unless certain complications or weakness demand otherwise. What a normal person needs as a means of preserving health is sleep, food, exercise, baths; and these are only *means* of developing the best that is in us, so that we can better serve others; for then only, can we have comparative health and happiness.

INFANT AND CHILD WELFARE

The proper management of children is the most important subject that can be brought to the consideration of parents, and yet it is one that has been greatly neglected. It is a subject that seldom receives the attention which it merits. Most mothers undertake the training of children without previous instruction, believing it can be learned by instinct or by affection. The scientific management of a child begins, or should begin, before birth. Prenatal influences and education are of vast importance; yet strange to say they are greatly neglected and misunderstood. To have healthy children the parents must first be healthy themselves. They must not violate nature's laws. Physical strength, agreeable temper, and nobleness of mind beget their like, whereas intoxication, debility, debauchery of mind or body yield like characteristics in the offspring.

PRE-NATAL INFLUENCES

The care of the mother during pregnancy, especially in matters pertaining to clothing, baths, exercise, diet and rest plays an important rôle. Immediately after conception, the mother should begin to take unusual care of her health. Her clothing should never be tight but rather loose and comfortable, and adapted to the gradual development of her abdomen and breasts. The frequent use of tepid baths, with

daily sponge baths of lukewarm water should be encouraged. The mother should take short, frequent walks during the whole period of pregnancy. She should spend as much time as possible in the open air. As to diet, meats should be eaten rarely or not at all. Highly seasoned foods and rich soups should be avoided. Alcohol, tea, coffee and other such stimulating drugs, should be prohibited. A pregnant woman should go to bed when sleepy and get up when not sleepy. There is no other fixed rule as to when to go to sleep. Everything to make the mother comfortable, cheerful and happy is of utmost importance. And in addition let it not be forgotten that the health and mood of the father at the time of impregnation are of great influence on the future welfare of the child.

TO ESTABLISH BREATHING OF THE NEW-BORN

In the absence of a physician, the body of the infant may be immersed in hot and cold water alternately. Frequently hang its head downward, slap the chest of the infant gently and clean the nose and throat. After breathing is established and the babe cries well, wrap it in a warm blanket or woolen shawl laying it on its right side in a comfortable place, until the mother has been properly taken care of.

TYING THE CORD

After proper breathing has been established, in the absence of a physician, take a piece of strong wrapping cord, or braided silk, and tie the cord about two inches from the abdomen. Again tie it a little

further away; and then (after pulsation has almost subsided) cut the cord between the two strings.

BATHING

The infant should be given a cleansing bath soon after birth. A soft wash cloth or bath sponge may be used for the washing process. After gently drying the skin, the entire body may be dusted with powder, either powdered starch, talcum, lycopodium, or violet powder.

BABY'S EYES

The care of baby's eyes is very important. They should be properly cleansed with a warm boric acid solution. For many a good reason, it is advisable to use a few drops of 1% or 2% solution of Silver Nitrate in both eyes. Always be sure that the eye-dropper is clean. Of course, it is best to have this treatment given by the skillful hand of the physician. Other items of importance are: care of the naval; applying the dressing; dropping of the cord; bandaging, etc.

FEEDING OF INFANTS

It is hardly necessary to say that a baby should be fed on mother's milk, if that is obtainable. There are many mothers, strange as it may seem, who think more of cultivating their breasts with reference to pretty form and figure than as a means for nourishing their child. Circumstances may prevent this natural method of feeding, such as disease of mother or child, a poor development of breasts or nipples or absence or lack of milk development. In cases of that sort, a competent wet nurse is most desirable. Dis-

crimination should be used in the selection of a nurse. A cross, ill-natured woman ought never be employed, because bad temper effects the secretions of the breasts, thereby producing poisonous substances which are harmful for the child. The wet nurse should be free from bad habits; of good temper, and, above all, clean and free from disease. A puny, sickly nurse is not capable of imparting to a child the nourishment it requires. If proper nurses cannot be obtained then other means must be found.

MIXED FEEDING

Mixed feeding should take place only when the mother's milk is deficient. We must recognize the fact that the mortality of bottle-fed infants is about three times as great as that of breast-fed babies. A cow's milk, at best, is only a substitute for mother's milk. Therefore only under the pressure of urgent necessity should nursing be given up by the mother. In such cases, modified cow's milk, or some properly prepared milk may be resorted to.

ARTIFICIAL FEEDING

The problem of artificial feeding is best solved by the aid of an expert. Cow's milk, if properly modified, is the best substitute for mother's milk next to a competent, and healthy wet nurse. The milk should be well diluted, gradually increasing the amount of milk at each feeding. The milk should be pure; if possible, always taken from the same cow, a healthy one. If there is any suspicion as to the purity of cow's milk, have it examined. We do not believe in "pasteurized" milk. Pure or clean milk should not

necessitate boiling, cleaning, or "pasteurizing," any more than a clean plate needs cleaning. The best pasteurizing agency is the cow. The best way to have such a pasteurizing agency in good condition is to see that the cow be healthy; and the only way to accomplish that is to give the cow plenty of clean water, wholesome food (no artificial or milk-producing substances), proper ventilation and exercise in the pastures. Anything less than that is cheating the children. Raw milk is the best because it has not been kept as long as the other kinds and is more wholesome and natural.

FEEDING NOTES

The child should be held in proper position by the mother or nurse, throughout the feeding, in such a way that the baby may be able to get a "good grip" of the nipple. The milk should flow freely and the feeding should not be interfered with, permitting air to enter the nipple. The length of feeding time, should, generally, be no more than about twenty minutes. The bottle should be taken away from baby as soon as he is through eating.

"DONT'S" FOR BABY

Don't forget baby's daily bath, giving a gentle massage.

Don't neglect baby's daily outings.

Don't vaccinate the baby.

Don't use soiled napkins or towels.

Don't keep poisonous or unwholesome things within the reach of the baby, as everything goes into its mouth.

Don't drug the baby with patent medicines nor with calomel, paregoric, tea, coffee, and whiskey.

Don't forget to give a little water, when baby seems "fretty."

Don't let baby sleep with an older person.

Don't cover baby's face and head with a blanket, shawl or cushion.

Don't pierce baby's ears, with a view to her wearing earrings. (A barbaric and senseless custom.)

Don't keep the baby where the light may shine in its eyes.

Don't overdress baby, but keep it warm.

Don't keep baby in rocking-cradles, and, above all, never rock it, or shake it.

Don't keep baby in the arms most of the time. It deforms the baby and enslaves the mother.

Don't permit baby to suck its fingers.

Don't let baby get used to breathing through its mouth.

Don't feed baby on meat. It may have been kept in cold storage, preserved with saltpeter, or washed with aniline dyes.

Don't think the baby is hungry, when it cries, for it may be crying because it is *over*fed. (Usually the case.)

Don't feed baby against its free will. Nature always knows when and what it wants.

Don't let the neighbors and friends kiss baby on the mouth (or even "dad" if he smokes or chews tobacco).

Don't allow the flies or mosquitoes to get all over baby, when thin gauze can prevent them.

Don't get baby in the early candy habit.

Don't feed baby if it ever has fever or does not feel well. Better give it more water and cleanse the lower bowel by enema or suppository.

Don't tickle baby.

Don't throw the baby or bounce it, or swing it over your head, as though he were a bundle or a punching bag.

Don't get it used to the eternal, unsanitary pacifier.

Don't let it have dirty finger nails.

Don't neglect cleansing its eyes and ears.

Don't bite off some food and then give baby part of it.

Don't blow on hot soup, milk or water before giving it to baby.

Don't whip baby with whips, straps or sticks.

Don't teach baby to be afraid of such imaginary objects as the Boogy man, goblins, and devils.

Don't shut baby up in a dark room or frighten it or deprive it of food, as a means of punishment.

WEANING

When the child reaches the age of eight or nine months, it may be fed from a spoon, cup, or bottle. Give water in a nursing bottle several times a day to prepare a child for weaning. It is far better to commence giving the child one or two meals a day by means of a nursing bottle, adapting the child to the weaning process, than to wean it suddenly, and at a premature time. We should bear in mind that the more natural the method employed the better for all concerned. Especially should we bear this in mind when dealing with an infant. Weaning should begin

at ten or eleven months. But conditions may modify such a plan. We still have some mothers who wean their babies too early, so that they may get in the "social swim" again. This causes a higher rate of mortality. What a shame and sham that mothers prefer "convenience" and the "glossy floor of the ballroom" to the health, comfort, and longevity of their dimpled babes!

WEIGHT

The usual weight of infants at birth is between seven and eight pounds for a boy and between six and seven pounds for a girl. The infant loses between one-half and one pound during its first week of life, then commences to gain steadily. As to the average weight and height of infants during the first year, the writer presents a table, compiled by J. H. Kellogg, M.D., LL.D., appearing in his book, "Hygiene of Infancy":—

Age	*Weight* *Lbs.*	*Oz.*	*Height*
At Birth	7½		20 inches
Two Weeks	7	10	
Three Weeks	8	1	
One Month	8	8	21 inches
Two Months	10	7	22 inches
Three Months	12	6	23 inches
Four Months	13	13	24 inches
Five Months	15	4	24½ inches
Six Months	16	3	25 inches
Seven Months	17	2	25½ inches
Eight Months	18	1	26 inches
Nine Months	19		27 inches
Ten Months	19	14	27½ inches
Eleven Months	20	13	29 inches
Twelve Months	21	12	

THE TEETH

The first, temporary, or milk teeth are twenty in number. There are thirty-two teeth in the permanent or second set. It may be interesting to know that occasionally children are born with one, two or more teeth, while others have no teeth until the eighteenth month. The following is the order and usual time of appearance of teeth:

(a) Two lower central incisors (middle front teeth), 6 to 9 months.
(b) Four upper incisors (upper front teeth), 8 to 12 months.
(c) Two lower lateral incisors (front teeth in lower jaw) and four anterior molars (front double teeth), 12 to 15 months.
(d) Four canines (generally spoken of as eye teeth in the upper jaw, and stomach teeth in the lower jaw), 18 to 24 months.
(e) Four posterior molars (large double teeth), 24 to 30 months.

At one year a child should have 6 teeth
At one and a half years a child should have 12 teeth
At two years a child should have 16 teeth
At two and a half years a child should have 20 teeth

Some of the common symptoms of "teeth-making" are: fretfulness, free flow of saliva, indigestion, and sometimes fever. Care should be taken, during the cutting of teeth, neither to overfeed the child nor to feed it when it does not want food. Constipation or diarrhœa should be given prompt attention. Irritated or swollen gums may be relieved by bathing them with a weak solution of boric acid. Gently washing the teeth with a small quantity of absorbent cotton is soothing and cleansing.

SLEEP

It is always desirable and in most cases it is pos-

sible to keep up the daily nap with regularity until the children are at least four years old. An infant should be accustomed to being put into its bed or crib while awake and to go to sleep soon of its own accord. The only requirements for sleep should be a quiet, dark room, a comfortable warm bed, dry napkins, and a satisfied stomach.

FORBIDDEN FOODS

Children under five years of age should not be permitted to eat the following:

Meats. Sausage, ham, pork, fish, goose, kidney, liver, stews.

Vegetables. Fried vegetables, cabbage, pickles, potatoes (except when boiled or roasted), radishes, beets and turnips; also condiments with the exception of salt.

Bread and Corn. All hot bread, biscuits and corn.

Desserts. Candies, pies, pastry and cheese.

Drinks. Tea, coffee, beer, wine, and cider.

Fruits. All dried, canned, and preserved fruits; bananas; unripe fruits.

SIMPLE RULES OF CHILDREN'S EATING

1. Eat slowly. 2. Do not eat between meals. 3. Chew food thoroughly. 4. Do not eat too many kinds of food (mixtures) at the same time. 5. In hot weather, eat sparingly. 6. Never eat when *not* hungry; always eat *when* hungry. 7. Eat for efficiency, strength, health, and longevity, not merely to tickle the palate or because it is "dinner time." 8. Do not eat for sociability's sake. 9. Do not eat when angry, excited, or suffering pain.

ENTERING SCHOOL

The problem of when to enter school depends on the individual child. As a rule children are sent to school too early. Delicate children had better play "tops and marbles" in the open air and sunshine for a year or two longer than the "school age," while strong children, who are eager to study, may enter school much sooner. It is more important that the child have a healthy body than be an educated weakling. It may not be out of place to add here that the entire system of schooling ought to be revised. Some subjects that are now taught ought to be eliminated from the curriculum while others should be included. I would substitute the teaching of such vital subjects as Dietetics, Sex Hygiene, Ethics, "Genuine" History, Economics, Civics, etc., for a dead language called Latin. (Some schools have already made Latin and other studies optional with the pupils.)

The kindergarten seems to be a timely and logical place for healthy, desirous children. Parents should demand a system of teaching where individual attention is given to children. Let us also have more teachers and pay them better than we do; and let the teachers marry if they want to. A married teacher is usually a better teacher.

PUBERTY

The time of life when boyhood emerges into manhood and girlhood into womanhood is termed puberty. It is a serious time. Parents themselves should first learn of the importance of this change. The parents should take the boy or girl into their confidence and

in a proper, human way, impart such knowledge to them as will make them understand the significance of their physical change. They should explain the proper care of the body and explain the need of discretion, thus guarding their self-respect as they grow toward adult manhood and womanhood.

Children of this age should not be permitted to grow up in ignorance of the laws of their vital organs. (Read chapter on "Vice Prevention, Prostitution and Venereal Diseases.") Let this knowledge be imparted as early as the inquisitive nature and health status of the child will permit—from ten years upward children are usually ready for this. We have nothing to lose by telling the truth, and all to gain. Nothing will hurt more than ignorance. We have employed ignorance on these subjects long enough. Now let us try education for a change, and if we should ever become dissatisfied with it, we can easily go back to the ignorance, prudishness, and false modesty of to-day in which children are usually brought up.

INFLUENZA: ITS CAUSE, PREVENTION AND TREATMENT[1]

Is there such a disease as Spanish influenza? What is the cause of it? How can it be prevented? How is it best treated? Is it necessary for caretakers to wear a mask as a preventive? Will wearing camphor on the chest prevent catching it? Will this new serum, or vaccine, either prevent or cure it? Is it a germ disease? These are some of the many questions asked regarding it.

First. I do not believe we have such a disease as Spanish influenza, any more, indeed, than Japanese influenza, Russian influenza, Dr. Katzoff's influenza, Bridgeport influenza or President Wilson's influenza. Influenza always has been and is merely influenza, which in good, plain American, is only grippe. We had grippe last year, two years ago, and a few years ago; we have it this year; and, doubtless, shall have it next year and every year, until folks stop converting their stomachs into human dumps.

As to the name and history of the disease, I quote from a recent article in the Taunton *Evening Press*, written by one of the most tireless investigators, deepest thinkers, and scholarly physicians of New England, Professor Frederick Wallace Abbott,

[1] Article written during Influenza period and appeared in the *Machinists' Monthly Journal* (Washington, D. C.), and later quoted in other publications.

Ph.D., M.D., D.C.L., of Taunton, Mass., who says in part:—

"Spanish influenza or, better, la grippe,—derived possibly from *agripper* (to seize),—is the French name of a disease better known to-day by both the profession and the people of English speaking countries, as influenza, or epidemic catarrh. La grippe is not a modern disease for it is described as occurring in France and Britain in 1510, and it quite probably existed in Italy as early as 827. Some even claim the Athenian army was affected in Sicily, 415 B. C. Its first appearance in this country was in 1557. Neither age, sex, social condition, country, climate, season nor previous attack exempts from it, though some of these factors more or less modify it. Dark, damp, dirty habitations in unhealthful localities doubtless conduce to its spread, inasmuch as these factors depress the vital forces of their inmates and render them susceptible to the influence of those poisonous accumulations, which cause the disease."

Second. Do not fear it. Remember, fear is often worse than the disease. Fear but helps bring it about. The boards of health in their death reports, through the daily press, have been frightening the public into this "new disease." Many a delicate person begins to imagine, "I've got it!" and thus weakens his system, poisons his blood by not digesting his food, and paves the way for almost any disease.

Third. Do germs cause influenza? The writer agrees with those members of the medical profession who hold that germs do *not* cause influenza; further, that germs do not cause any other disease. Disease always causes germs. This germ-theory business,

like the false report of Mark Twain's death, is greatly exaggerated. The truth is that the specific germ is only the *symptom* or *result* of broken-down cell structure instead of the cause.

Fourth. Shall we wear a mask? Do we not wear enough masks now? Must we wear another on top of what we are already wearing? If we are going to adopt any mask-wearing styles, let us have them over our mouths, to keep out adulterated foods, excessive food, and horribly prepared and poorly combined foods, on which we are constantly feeding, and with which we are gradually poisoning our blood stream, thus inviting uncomfortable manifestations, or groups of symptoms, known as influenza, smallpox, pneumonia, measles, tuberculosis, and other filth diseases, which are only nature's "periodic house cleaning," or effort to rid us of the toxins, or waste, accumulated by years of debauchery and "over pigging."

At the rate we are "advancing" some bacteriologist will shortly insist (in the name of "science") that we wear veils over our faces, stick porous plasters on our noses, keep garlic and onions in our pockets, and powdered glass in our shoes, as "preventives" of influenza, "the pip" or most anything else. And if one dare laugh at it, he will be "peculiar," "irregular," "unscientific," "ignorant," and a "crank."

Fifth. About wearing camphor, well, if one believes it really has preventive powers, let him wear it; but wearing a piece of camphor on the chest (or forsooth, on the knee-cap) will prevent disease as much as would wearing a piece of potato-pancake or half a dozen Chinese nuts.

Sixth. Many still believe whiskey is a good preventive of, and a good "tonic" during grippe. No greater fallacy (with, probably, the exception of vaccination) ever existed. The further you get away from the poison called "booze" the better. Whiskey may be a good thing with which to polish furniture, or scrub floors, but is a poor wash for one's stomach and kidneys. Notice this: those who generally recommend it, like to "moisten their tongues" with it occasionally.

Seventh. About spitting, coughing, sneezing and whistling, every sane person knows such practices ought to be performed as privately and as sanitarily as possible—in a handkerchief (which should later be burned), and with the head turned from others always. However, even the violation of this common sense, hygienic measure will not cause influenza. The "catching" is already in our blood and stomachs.

Eighth. About closing schools, theaters, churches and libraries, all such places should remain as usual. They have no effect on either influenza or most other filth diseases. In fact, if we would only visit the library more and the meat market less, we would have less illness.

Ninth. About this "new" serum, we agree again with those members of our profession and with the many scientists, and thinkers of all countries who consider serums a new fad—still in the experimental stage to be very mild or conservative about it. In other words, experimental serumizing does no good. It opens the door for the very disease it is supposed to prevent because serums and vaccines are, in themselves, filthy substances extracted from the poison-

ous blood of animals and, evidently, contaminating to our blood.

Tenth. You may now ask: "What *causes* influenza, and what are the remedies?"

CAUSES

(1) *Too Much Eating.* We are a race of gluttons, of stomach worshipers. We make dumps of our helpless, neglected and hapless stomachs; hence we are continually accumulating poisonous end-products in the system.

(2) *Adulterated Foods.* Yes: we eat a great deal of adulterated food, especially when we eat certain meats and canned goods. This sort of eating naturally produces more toxins, end-products, and ptomains in our bodies.

(3) *Vaccination.* Despite the fact that medical men disagree as to the efficacy of vaccination (and perhaps millions of parents are opposed to *compulsory* vaccination) thousands of children are needlessly and harmfully vaccinated to prevent a certain filth manifestation known as smallpox. Instead of preventing, this only pollutes the blood and helps induce the very disease vaccination is supposed to prevent. This vaccine injected usually leaves a poisonous residue in their little bodies, which sooner or later comes to the surface in the form of influenza, diphtheria, measles, tonsillitis, pneumonia, and other "outbreaks." (See Articles and Comment on "The Vaccination Problem" in Part II.)

(4) *Nervous, Hysterical, and Anxious Moods.* For the past several years people have been more

hysterical and irritated generally than ever before. The world-wide war naturally had its share in producing "anxious moments," a circumstance causing many to eat fast and be less careful as to what they ate; hence indigestion and loss of sleep. Such abnormal living and the "eager pace" to which most people are subjected brings to the surface, through lowered vitality, most of the so-called "catching" diseases. Some who speak of "catching" diseases apparently think disease a train about to leave on time.

The truth is, influenza has always come from unnatural living. Somehow we think of sanitation as an external matter, or something outside us. We think of bathing the skin, cleaning the teeth, or even polishing our shoes, but we are forgetful when it comes to *internal sanitation.* What do I mean by that? I mean sanitation of our stomachs and intestines—sanitation of the liver, kidneys, and other internal organs; briefly, physical cleansing of the inner man. Our internal organs cannot be clean when they are fed on filthy foodstuffs, any more than our minds can produce clean thoughts if fed on filthy literature or common reading matter.

We must so eat and so live in general as to maintain normal circulation, clean blood and proper equilibrium. In other words, eat little, if any, meat. Partake of fresh vegetables, cereals and fruits; drink plenty of clean water, but no "booze"; and not parade from morning till night with a plug of "skunk weed" in the mouth, as if advertising the tobacco trust. We should remember, especially that the nose is for breathing, and the mouth not for

breathing but for eating. The nose, seldom an ornament, helps us "pull in" the air from which oxygen is extracted by the lungs, which, in turn, is sent by the heart to all parts of the body to help oxidize or burn up the accumulated waste in our corporations —our self-regulating machines.

Another important point is not to become constipated. If necessary we should consult Mr. Enema or eat such natural laxatives as prunes, figs, dates, bran muffins, fresh fruits; and hot water; and remember that a day's fast will never hurt us. It is a digestive crime to eat when not hungry, so better miss a meal or two than overeat.

If for some unknown reason you "do not feel well," or you ache "here and there," do this:

(1) Take a warm bath.

(2) Go to bed.

(3) Eat absolutely nothing and drink all the water you wish, either hot or cold. Your stomach, too long evidently a junk shop, needs a vacation after serving so careless a master. Give nature a chance to burn up the waste it has accumulated and cannot utilize, without interfering by dumping more food into the already overburdened organ.

(4) Spray, wash, or mop your nose and throat with salt water, glycerine or any other cleansing agent. Be sure to use the nose in breathing and have plenty of air coming into the rooms.

(5) If you have no fever and are hungry, eat fruits and drink plenty of water. Bran bread, corn bread and bran muffins may be useful. Lemonade,

grape juice, and orangeade are wholesome drinks at times.

(6) Do not cover your head as if Old Bogy were going to catch you, and do not cover yourself with a lot of blankets. If you are chilly, keep a hot bottle at your feet and the whole body will soon feel warm.

(7) Hot fomentations to the chest and abdomen sometimes benefit. If headache be felt, put cold compresses to the head.

(8) Sponging with tepid water, witch hazel, or diluted alcohol is sometimes comforting, and gentle massage with a soothing lubricant is very helpful at times.

If, having tried these simple methods, you do not improve within a day or two, call your doctor: "Better be an hour too soon than a few minutes too late." Enough, probably, on a disease but little to be feared if fairly understood.

TUBERCULOSIS—ITS CAUSES AND PREVENTION

At an annual meeting of the National Tuberculosis Association held at Boston a few years ago these startling statistics were read: "Two million people in the United States are suffering from tuberculosis or consumption."

Think of it! Despite the many physicians, surgeons, nurses, pharmacists, hospitals, sanitariums, health resorts, drugs, midwives, lectures, prayers, editorials, collections, contributions and what not for so many years, we still find ourselves confronted with a problem that is growing steadily worse! We believe the figures read at the Tuberculosis Association meeting could easily be multiplied by three.

Why should we have so many cases of tuberculosis in our most prosperous country? Why should it be on the increase? Why is it not gradually reducing to a minimum?

CAUSES

The cause or causes of tuberculosis may be summed up in one phrase, namely, *our twentieth century abnormal mode of existence.* In the Middle Ages, when mankind lived more consistently with nature's laws, when the brick tenement and the factory smoke had not yet made their "début," tuberculosis was a thing unheard of, whereas to-day this White Plague is becoming more prevalent among us.

Many factors predispose or make one susceptible to tuberculosis. Hereditary disposition, narrow chest, certain diseases, such as the venereal, vaccination, and pneumonia, particular employment exposing artisans to dust or to fumes of metals or minerals under a confined and unwholesome air (these conditions could be prevented if protective means were employed), violent passions, exertions or affections of the mind, as grief, disappointment, anxiety or close application to study without using proper exercise; frequent debaucheries, drinking freely of strong liquors, great evacuations, as diarrhœas, diabetes, leucorrhœa, immoderate discharge and also frequently the obstruction of the menstrual flow; the continuing to suckle an infant too long under a debilitated state; and lastly, exposure to cold, either by too sudden a change of apparel, keeping on wet clothes, lying in damp beds or exposing the body too suddenly to cool air when overheated by exercise; in short, anything that gives a considerable and sudden check to the perspiration and lowers vitality opens the way for tuberculosis.

Excess or intemperance in eating and drinking and folly of dress contributes to cause this disease. This dress (sometimes undress), exposed chest, tight lacing, till a woman can hardly stoop or breathe, one minute in a heated ballroom in perspiration, the next in extreme cold air, is enough to start a cough and symptoms of quick consumption may follow. Confined and sedentary occupations in cellars and factories where sunshine is a rarity, the air inhaled is impure, and unsanitary lavatory conditions prevail contribute to undermine the resistance power

of a human being thereby paving the way for "T. B." or any other organic illness.

Some claim that the cause of tuberculosis is a little germ called Bacillus Tuberculosis. These fellows (Bacillus Tuberculosis) have become so popular today that books are written about them, microscopes have become more important (and cost more) as a result of them; laboratories are now considered more scientific and reliable on account of them; and next to the devil himself, they are the most slandered, abused and feared fellows known to polite society! We agree with those members of the profession who hold that no germ causes tuberculosis. Germs do not cause *any* disease. Further, we agree that there is more harm in the *fear* of germs than there is in the germs themselves. We do not claim that there are no germs, but maintain that the *importance* of the germ as the *cause* of the disease has been greatly exaggerated to say the least. If the present-day notions concerning the extreme importance of disease germs and their destructiveness were true the human race could not exist for one hour. Disease germs are *everywhere.* The air is full of "contagion." And were all humans susceptible we should all be on our death beds before sundown. As a matter of fact, there are some germs that are present in parts of all animals, especially in the intestinal tract and the mouth. The writer is not opposed to the further research and understanding of the action of germs (which rightfully belongs to the realm of Biology), but cannot agree with the view advocated by many well-meaning physicians that germs are the sole or chief cause of this or any other disease. The ques-

tion arises: If germs *do* cause disease, what causes germs? Where does the germ come from? Why do they not affect all alike? And have we less illness in the world to-day?

TREATMENT OF TUBERCULOSIS

To describe in detail the general treatment of "T. B." patients would be to write a treatise on hygiene and health. Let us remind ourselves right now—lest we forget—that *nature* cures all ailments (that are curable), and that nature is the only real doctor. The most any doctor can do in tuberculosis or in *any other* disease is to *help nature* by suggesting, urging or prescribing various health measures.

We know of only a few things that will help. (Those who know something else are invited to communicate with the author.) They are: 1. Proper diet; 2. Fresh air (open air living); 3. Sunshine (sun baths if possible); 4. Clean water; 5. Suitable clothes; 6. Deep, rhythmic breathing (through nostrils); 7. Systematic, careful exercise (massage and electricity are of service at times); 8. Bathing; 9. Cheerful environment—and above all, *will-power*.

AIR

The consumptive requires a pure, dry atmosphere. He should travel if possible. For those who have families whom they cannot leave, gardening or out-of-door amusement of any sort will be a good substitute for travel. Wear loose clothing; sit, stand and walk erect, and even lie with the shoulders thrown back; banish despondency—"laugh and grow fat"; and be regular in eating, in sleeping and in all

other habits. It is well to practice the taking of long breaths; that is, to take as much air into the lungs as they will contain, and to hold it there as long as possible; breathing, of course, through the nose only.

EXERCISE

Exercise in the open air and bright sunshine, avoiding only the noontide heat in summer. Let the sun shine freely into all your rooms. Eat ripe fruit and use neither tea nor coffee. Be sure that you obtain your regular and sufficient portion of sleep every day. Wash the teeth and mouth thoroughly every night and morning. Remember, sanitation must be practiced *internally* as well as externally. If possible, exercise should be so taken as to bring all the muscles into moderate and agreeable action with the body in an erect posture. Walking exercise furnishes these conditions to a certain extent, but riding on horseback has the advantage of permitting the patient to breathe a large amount of fresh air, while it does not occasion fatigue or great difficulty of breathing. But excessive exercise, either of the mind or body, should be avoided.

THE DIET

The diet should be nourishing, digestible and sufficiently abundant. Good home-made bread not less than one day old, puddings of arrowroot, rice, sago or tapioca; various kinds of green vegetables and mealy potatoes, together with other simple foodstuffs according to physique, temperament, digestion, etc. No forced feeding should be allowed. Pastry and all articles that give rise to irritation of the stomach,

nausea, eructation or any other symptoms of indigestion should be avoided. Pure olive oil is a wholesome and nutritious food as well as laxative-lubricant that should be utilized.

BATHING

Except in advanced stages of tuberculosis, bathing is generally beneficial. But on no account should the patient bathe when exhausted, when the body is cooling after perspiration, or within two hours after eating. When sea-bathing is not admissible, sponging the chest and back with water to which sea-salt has been added can generally be borne and enjoyed, and when it is followed by a general glow it is a most valuable aid in promoting capillary circulation.

Tuberculosis can be prevented only by living a natural, simple life; and can usually be eradicated from the system when one again begins to live in conformity with natural law.

(Suggestive readings: See "Tuberculosis as a Social Disease" in the *Long Island Medical Journal* (June, 1915); and "The Effects of Civilization on the Morbidity and Mortality of Tuberculosis" in *The Journal of Sociologic Medicine* (February, 1919); both articles by S. Adolphus Knopf, M.D., Professor of Medicine, Department of Phthisiotherapy, at the New York Post-Graduate Medical School and Hospital, etc.)

HEADACHES—THEIR CAUSES, TREATMENT AND MISTREATMENT

"Oh, my head is bursting," and "I would give anything in the world to get rid of my headache." These are expressions of pain and agony made by thousands of people every day. And yet most of these same people do not know that their headaches are only symptoms of certain physiological or anatomical disturbances in their body, which come as a result of violating nature's laws.

CAUSES

Among the numerous causes of headaches—direct or indirect—may be mentioned: constipation, bad air, hunger, fatigue, eye strain, indigestion, menstrual abnormalities, brain tumors, various neuralgias, nasal growths and mouth breathing, worry, anger or excitement, alcoholic indulgence, sexual debauchery, syphilis, hasty eating, excessive eating, adulterated food, incompatible mixtures, overcooked and undercooked foods, and general "dietetic chaos," lack of sleep, prolonged nursing of infants, tea, coffee, and other drugs. Other causes and semi-causes may be mentioned, but the aforementioned are the most common—too common.

HARMFUL REMEDIES

When we stop to think how men and women, espe-

cially women, make invalids of themselves by running to the drug store for "a bromo," "a few aspirin tablets," "an acetanilid compound wafer," or "some headache powder," we realize how many human beings are still steeped in ignorance, or have little self-reliance and forethought. They keep us physicians busy making feeble attempts to relieve, revive and restore them from the effects of such drugs. Such is the price suffering mankind must pay for its credulity and submissiveness to custom.

The truth is, that the abuse, the continuous use of dangerous drugs as aspirin, acetanilid and bromin, as a "cure" of headaches is more harmful to the human system than the headache itself. What relief those drugs afford is usually obtained at the expense of vitality. These heart depressants (aspirin, acetanilid and bromin), unless very carefully prescribed by a physician, serve to produce various derangements of the heart and other organs, eventually hastening death.

Another sad and deplorable fact about this "headache drugging" is that these drugs lose their effect (in time), while the victim suffers and continually becomes weaker. Many, while suffering, then resort to narcotic drugs. If they cannot secure them from the druggist they will keep on coming to the physician, or go from physician to physician, finally getting prescriptions from different ones, which are filled at different drug stores. In this manner many a good woman drifts unconsciously but gradually into being a "dope fiend"—all because of the temporary, otherwise valueless, "headache powder." All this could have been *prevented* if the victim had been

taught the *cause* of the headache and could have used *self-reliance* and *uncommonly good sense* methods of procedure in a case of excruciating headache.

Further, the continuous use and pernicious misuse of these drugs blunt perception and destroys the nervous system, thereby causing organic lesions and death. Many a death certificate that reads "Died of *Heart Failure*" should, instead, have appeared "Died of Aspirin Drugging," or "Died of Headache Powders and Stupidity," or "Died a Victim of Narcotics," or "Another Victim of Baccilli Ignoramus."

NATURAL REMEDIES FOR HEADACHES

The causes themselves suggest their remedy or treatment. *Constipation* (a subject referred to on numerous occasions throughout the book) needs little comment. It is understood that a laxative diet should be selected. Fruits and vegetables are serviceable. Prunes, bran muffins and the like may help. Taking a glass of hot water upon rising and retiring is a good habit. Whole wheat bread should be preferred and bran muffins or biscuits should never be served when fresh and hot. The less fried food one eats, the better. He should take exercise regularly—especially abdominal work, such as bending. Sometimes the taking of a few teaspoonfuls of good, unadulterated olive oil a few times daily will help to lubricate the intestines and in that way assist nature.

Alcohol has been thoroughly discussed under its heading elsewhere in this book.

Bad air certainly plays an important rôle. Among the poor it is not uncommon for quite a number to sleep in one room, sometimes with the windows closed.

Among the more prosperous you will find people sitting in a small room playing pinochle or poker, while smoking tobacco for hours at a time, making the air in the room as thick and impenetrable as a dense fog. These people probably have sat near a desk all day, doing sedentary work, and should be taking a long walk and getting more air and exercise. Industrial conditions are such to-day that many workers get headaches, weak eyes, etc., from the chemical fumes, obnoxious gases in the process of manufacture, and various kinds of irritable dust from the factory smoke and the eternal, monotonous roar.

Hunger should never exist. If one-fourth of the food produced to-day were actually destroyed the world would still have plenty of food for everybody, provided that it were not wasted or spoiled by artificial methods of preserving, transportation and profiteering.

Eye strain is often due to reading by poor light or reading too long a period at one time. In the schoolroom weak eyes are sometimes developed, because near-sighted children do not get seats near the blackboard, or they are placed too far from the window. It does become necessary sometimes to wear good eyeglasses. But one should be certain that other natural means of correction have been exhausted before resorting to them. For this there are two reasons: first, it is a difficult matter to see well without lenses after getting used to them; and second, because there is so much abuse in optometry that poor glasses may only aggravate the condition and lead to other disorders of vision.

To discuss the subject of *syphilis* adequately as a

cause of headache would require a chapter in itself. Suffice to say that unless a person is familiar with the disease he should have an expert treating him. There is no need to *fear* syphilis in the primary stages any more than to fear an ulcer, ordinary inflammation of the appendix, a case of piles or any other such ailment. The fear, like the abnormal fear of germs, is sometimes more harmful than the condition itself. The essential things to do are to eliminate all bad habits, take Turkish baths often, eliminate from your diet flesh meats, stimulants, condiments and pastries, take regular exercise and practice deep nasal breathing. (Read Chapter on "Syphilis, Its Abnormal Fear and Prevention.")

Menstruation is sometimes a cause of headaches. Hot mustard foot baths and general hot baths prior to the appearance of the menses will sometimes prevent headaches. Rest should be insisted upon the first day, at least. Care of the bowels, light diet, and external heat while resting are usually beneficial.

Fatigue is not an uncommon cause of headache. One should, if possible, stop reading, writing, or working the moment he feels tired or exhausted. It will not only produce headaches, but will predispose to dizziness, and cause a loss of mental balance so that accidents may happen. Many railroad, trolley car and jitney accidents that take place daily are due to fatigue. In fact, four or five hours of real work daily is sufficient for a normal person, from a physiological standpoint. If only those who are physically and mentally able to work would work, even four hours would be more than the human race needs to produce the necessities of life. We should

have five or six shifts in factories, working under the most sanitary and pleasant conditions, so that all who labor will enjoy their work. It should be an exercise instead of a burden, and not a fight for existence, as is largely the case to-day.

Nasal growths and *mouth breathing* cause headaches. Some people apparently think their noses are ornaments—something to look at, or to be admired, or be continuously powdered before a mirror. They forget that the nose is meant for breathing and the mouth is not for breathing, but for eating.

Sexual debauchery, brain abnormalities, indigestion, adulterated food, food gobbling and other such causes of headaches are discussed in various chapters throughout the book and need no further comment here.

Worry and *Anger* are important causes of headaches. Worry, anger, and fear are the most destructive and disease-producing agencies known. But merely to say "stop worrying," or "forget it" will not accomplish any good results nor will this help us solve the problem. The truth is that worry is largely due to a loveless existence and the abnormal, chaotic means one is forced to adopt to make his livelihood. The struggle for existence consumes so much of a person's time and energy nowadays that his physical and mental capacity is depleted and devitalized; he becomes a weakling and cannot think in an emergency. So he resorts to worry. This in turn generates toxins or irritable, harmful substances in his body which undermine vitality and pave the way for illness and untimely death. All the more reason why one should try hard to think more and worry less

during troubles. Worry does nothing except break down the power of resistance in the individual.

As to *anger* being a cause of headaches, it is in itself a symptom of poor nerve tone. It can be overcome by the patient himself making a determined effort to outgrow it. After all, simple living, common sense, will-power and reasonable opportunity for developing the best in one's self are the best equipment for physical health and a headacheless existence.

KIDNEY-CIDE AND BRIGHT'S DISEASE

In the eternal struggle for existence, in this, our mad race to become famous, rich, or influential, we usually lose our better self, our health, and life itself. Many a man, after years of hard work and scheming, when he is just on the verge of reaching what is popularly considered "success," lies down and dies, or "compromises" with nature by becoming an invalid with a chronic case of Bright's Disease, or Kidney-cide. In other words, the kidneys will stand for debauchery and abuse on the part of their neglectful owners no longer, so they call out "halt," and then you suddenly cease your activities or cancel your "important engagements"—that is all.

We take it that you are familiar with the terms "homicide," "suicide," and perhaps "kidney-cide." Kidney-cide may be considered as the destruction or "slaughtering" of the functioning portion of one's kidneys, as a result of many years' debauchery, violation of nature's laws, and the leading of a genuine twentieth-century life in general.

Homicide is punishable under the State Law, but kidney-cide, a crime against one's self and society, goes free. It runs amuck and we do not make a true effort to stop it. When one makes a glutton out of himself he commits kidney-cide. We could and should live on one-half the food we eat. (At present we live on one-half—the doctors live on the

other half and five packers pile up net profits of a hundred million dollars a year.)

How many of us realize that those "meatless days" were really a blessing? When we eat the flesh of animals we eat the *end-products* such as urea, uric acid, dead cells, the animal sweat and poisonous waste, but when we eat whole grains, legumes, and fruits the nitrogen supply is sufficient, without the urea, sweat and other poisons.

Prof. Leibig, in his "Animal Chemistry," cites the restlessness and incessant activity of meat-eating animals—lions, tigers, panthers, wolves, hyenas—and observes that men, who habitually cram themselves with meat, manifest similar irritability and lack of repose. To be whipped into stimulation is not to be strengthened or recreated. The meat-eating animals pace up and down with certain wildness of movement while the elephant, camel, and horse exhibit all the dignity of reposeful strength.

How many of us know that in the year 1918, in the United States, twice as many people succumbed to diseases of the kidneys as did in the year 1877, and that a large percentage of these deaths occurred between the ages of forty and fifty years? When our death rate during the prime of life is doubled in forty years it is high time that we sit up and take notice. These deaths during the prime of life can be avoided, and we ought to start a "save our kidneys" campaign.

BRIGHT'S DISEASE

Bright's disease, or inflammation of the kidney, is the most common of all kidney diseases. In 1827

Dr. R. Bright recognized and described the dependence of dropsy and albuminuria upon kidney disease, hence the name.

The kidneys are a vital organ and cannot be impaired to any extent without serious or fatal results. Many cases of Bright's disease develop and pass to a fatal close without ever experiencing any distress in the back. Bright's disease is usually a disease of the ultra robust; a disease of the man who eats everything he wants, and all he wants, smokes all he wants, abuses his health all he wants, and says, "It never hurts me." It is a disease of people who are unfortunate in not being affected immediately by their bad habits, but with whom nature opens an account, runs it as long as possible, then suddenly demands payment in full. Bright's disease usually develops in strong men who would, under careful habits of living, attain an age of from one hundred to one hundred and twenty years.

CAUSES

Some of the important causes of Bright's disease are: overeating and underworking; excessive use of tobacco, and debauchery in general; certain drugs, such as turpentine, oil of mustard, lead, phosphorus, chloroform, ether, bichloride of mercury, carbolic acid, potassium chlorate, cantharides, mineral acids, etc.; strong tea and coffee. The frequency of nephritis in chronic drinkers proves the deleterious effect of alcohol, whether it acts directly as a poison to the kidneys or simply as a predisposing cause. Other possible causes of kidney inflammation are: exposure to cold, extensive burns of the skin surface, typhoid,

typhus, diphtheria, measles, smallpox, malaria, cholera, yellow fever, syphilis, and tuberculosis.

In other words, our "twentieth century express" methods of living gradually undermine health, eventually destroying vital action of the kidneys, paving the way for our future estate in the "happy hunting grounds." When the human animal eats excessively, even though he may digest most of it, the kidneys are overworked by being forced to eliminate an unusual amount of burned-up food. When a man eats "anything and everything" and digests only a part of it the kidneys are overworked to a still greater degree by keeping them constantly at the emergency work of eliminating food toxins that are formed as a result of the fermentation and putrefaction of unused food in the stomach and bowels.

PREVENTION—THE BEST TREATMENT

We shall not attempt to discuss the treatment of Bright's disease or kidney abnormalities. The author here is interested in general preventive measures. The cause, of course, when possible must first be removed. Proper preventive measures should be insisted upon in those whose occupations bring them into contact with the various industrial and chemical causes of the diseases, as lead and mercury. Overexertion should be avoided, especially by one who is subject to or predisposed to nephritic attacks, as it has been shown that excessive exercise can produce albumin and casts in the urine of even normal individuals. Mental anxiety as manifested prior to a final examination at school or college may produce albumin. Exposure to cold and wet for any

prolonged period should be avoided, or, if unavoidable, a reaction should be brought about by vigorous rubbing, the application of heat and exercise.

DIET

The diet should be that which will keep up the nutrition with least possible work upon the kidneys. Fruits and certain vegetables should form the chief article of diet, although no rigid system of diet can be formulated for all kidney diseases, nor for all stages of any form of nephritis. Some of the forbidden or undesirable articles of food usually are: sugar, ices, pastry and sweet foods generally; new bread, butcher's meats, beef tea, meat essences and strong soups; recooked meats, stews, hashes, and meat generally; potatoes, peas and broad beans.

Almost all cases of Bright's disease are curable if taken in the early stages. If the patient can be induced to give up his old habits and live consistently with good kidney health, the degenerative process can be checked and a wholesome equilibrium be established. But if the patient follows these beneficent directions grudgingly or listlessly, as if he did the world and his wife a favor, he is doomed.

DRUG ADDICTS OR "DOPE" FIENDS

The problem of the drug habitué or addict in the United States is appalling and shocking. To those who have kept pace with medical literature this chapter will not be new. To those, again, who are not familiar with this timely and vital subject the author intends merely to introduce it.

EXTENT OF USE

It is heart-breaking to think of the thousands of social victims whose dream ships have gone down in the relentless sea of time; who feel themselves sinking, with hearts faint from hoping, and with eyes weary from watching for the moment when they will become free from the shackles of "dope" slavery. Think of the broken hopes, broken homes, broken hearts; heartache of wives, loneliness of mothers, orphanage of children, agony of sweethearts, broken health and early deaths of young men and women, all due to the slavery of commercialized narcotic drugging.

It has been estimated by the Committee of Scientists appointed by the United States Treasury Department that the illegitimate use of such narcotics as opium, cocaine, and heroine is increasing at an alarming rate. This is indicated by the figures, which show an enormous growth in the annual total of the drugs used, from 192,000 pounds of four

decades ago to nearly 500,000 pounds at present. It has been further estimated that there is from 10 to 60 times more opium used in the United States than in China. The legitimate traffic is equaled if not exceeded by the illegal sale of such drugs. The drug addicts pay annually approximately $61,000,000 for gratifying their abnormal cravings. About 250,000 addicts are unemployed. They lose about one hundred and fifty million dollars in wages annually. These figures do not include the extensive underground traffic.

HOW TO SOLVE THE PROBLEM

The average narcotic addict is anxious to be helped and cured. Every case, aside from the general methods of treatment that might be employed, should receive individual or special attention according to the causes or circumstances surrounding the case. But the duty of the public is to prevent the desire for drug-taking. Physicians should begin thinking about this matter more seriously, make especial efforts to dispense mild drugs for the relief of pain. We should prefer that the physician be paid a few dollars more than he usually charges if he would remove his coat, roll up his sleeves, ask for a basin of hot water, a few Turkish towels and make the necessary hot fomentations over portion of the body in pain. It is because he is "rushed" that he administers a "hypo" and perhaps adds another to the line of addicts. (Read chapter "The Doctor and the Public," for more details about the doctor's duties and rewards.)

Hospitals, including sanitariums, health resorts,

homes of health and almshouses, should begin exercising similar degrees of caution. The hospital facilities should be highly equipped and nurses should be available in larger numbers so that no one will, in order to "save time," neglect the patient by "jabbing in" another hypodermic of morphine—many times avoidable, if more time were at hand. (Read chapter "Hospital Abuses.")

DRUG ADULTERATIONS

Another no less important matter worth consideration concerning the administration of narcotics, when really necessary, is that the drug itself may often be *adulterated*—and sometimes replaced by a substitute. During the war of 1914-1919 it was revealed that amazing frauds in drugs existed. Talcum powder has been substituted for aspirin. Potassium bromide has been found to consist of only one part potassium bromide and nine parts of Epsom Salts. Compounds of starch and table salt were sold for *Neosalvarsan*—"a second cousin to Salvarsan," ("606")—a dangerous preparation used by some in "curing" syphilis.

THE ECONOMIC ASPECT

Last but not least is the economic aspect of the question. The taking of narcotics or drugs can be best eliminated or materially reduced if the fundamental cause will be considered not with one eye closed and the other one asleep. Each man and woman who works for a living should be given the opportunity of working as long as he is physically and mentally able. Secondly, he should be so com-

pensated that he will not only be able to work, but will enjoy the work, and at the same time have the means to become interested in wholesome amusements and recreation. By these means fewer addicts would be produced. Until most people understand this vital problem more fully it remains the human duty of those who do know and feel to educate others. Until the people themselves are aroused to a knowledge of the true situation we shall have but little improvement no matter how many prescriptions are written, laws made, sermons preached, editorials written, or time and money spent. Not force but education—and that with tolerance and kindness—will hasten the solution of this timely and human health problem.

SANE OR INSANE?

It is becoming a difficult matter to distinguish between the sane and insane. What is popularly considered "sane" may in reality be "insane." What we to-day are inclined to look upon as "insane" may in the future prove to be "sane." Who is to be the judge, when our own knowledge and conception of such matters is limited and has become more or less one-sided and somewhat perverted, so that we are not always capable of comprehending the real nature of this problem?

The Connecticut State Report of a few years ago showed 4,100 insane persons confined to institutions for the insane. Of course, the figures would have swelled a little if some "who are out" should, if properly placed, "be in." Many prisoners are mentally and physically ill and should be in an institution or home of health. They should be treated as real patients with all the attention and care that it implies.

While writing of prisoners I am reminded of the statement made by Dr. Paul E. Bowers, medical superintendent of the Indiana Hospital for Insane Criminals: "Probably 50 per cent of all court trials are concerned with criminal cases, yet infinitely more attention is given to the legal classification of crime and the various modes of punishment than is given to the criminal himself. Our jurists, it seems, con-

tinue to study books instead of men, searching in ponderous volumes of citations; resurrecting decisions from the legal graveyard of the past; and with crumbling, moth-eaten and time-worn precedents, they attempt to regulate the unsocial conduct that springs from a disordered mentality." Dr. Bowers made a study of 100 prisoners, each of whom had been convicted not fewer than four times, and found that 45 of them were insane or feeble-minded, and in every instance the mental defectiveness bore a direct casual relation to their crimes. They were nevertheless tried, sentenced and punished as if they were absolutely and totally responsible for their actions. It has been estimated that these 45 defectives had had altogether about 180 trials. It cost on an average of $1,000 to convict a prisoner. Thus at least $180,000 was spent in getting those poor mental cripples into a prison when they really should have gone to a hospital. No wonder that George Bernard Shaw calls the British Police Court "Joke."

PRESS CLIPPING

Shaw Calls British Police Court "Joke"

London, May 30, 1918.—George Bernard Shaw thinks the British police court and prison system is a travesty on justice, that it is based on "making examples" of culprits whether guilty or not, and that there should be another Scotland Yard to detect weaknesses in evidence brought by police and wherein promotions should be by acquittals obtained.

"Every magistrate, every judge and every lord chief justice and every man in this country concerned in sending men to prison ought to do three months' imprisonment in order to find out about it," Shaw told the Public Vigilance Society.

"Our prison system is horribly wicked. It leaves every man

worse than it found him. It is hideous and stupidly cruel. But now it is becoming increasingly easy to convince people, because it seems to me that in a very short time every honest man in the country will have done six months and got to know something about it."

Further, Prof. Ernest Haeckel, in his *Riddle of the Universe*, in part, says: "We readily admit that the majority of judges and counsel decide conscientiously, and err simply from human frailty. Most of their errors are due to defective preparation. They have but a superficial acquaintance with that chief and peculiar object of their activity, the human organism and its most important function, the mind. Most of the students of jurisprudence have no acquaintance with anthropology, psychology, and the doctrine of evolution, the very first requisites for a correct estimate of human nature."

Anybody with a scientific turn of mind who loves justice and can tolerate truth can surely see the fallacy of our old system and would welcome, it seems, the application of scientific knowledge in these cases. We ought to have (and some day will have) a number of physicians attached to every court in the country having criminal jurisdiction whose function shall be to examine the prisoner physically, mentally, sociologically, and psychically. They shall submit their findings in detail, with suggestions and recommendations to the court, and consult with the court when necessary. We should then be doing our human duty in conformity with scientific knowledge and thereby help cure many mentally aberrated victims, at *less* expense than the present cost of eternal trials, waste of time and helpless confinement.

STATISTICS

The Connecticut State Report showed that 4,100 insane persons resided in the State Hospital and almshouses. Another striking feature is the fact that insanity in this state is increasing by 150 cases each year. Just think of such a report! At that "progress" the question arises: How many more years will it take until most of the people will be classified as insane? Who knows but that the years to come may not yield a more "prosperous" harvest of lunatics? According to these statistics, one in every 330 of the population is insane. The next time you notice a member in your lodge, union or church "flying off the handle," or hear him maligning and slandering an active, interesting fellow member, remember he may be one of the 330. Note this: the Connecticut rate is not so high as the New York and Massachusetts rate, where it is one in every 250. Well, well, well! We have something to be thankful for, after all. Just think of it, our "next door neighbors," New York and Massachusetts, are just a little more insane than we are. You need not laugh. It is not the victim's fault. Maybe it is partially due to the political excitements of the last few years. Maybe! At any rate and at all hazards, it is a sad state of affairs.

UNQUESTIONED FACTS

The subject of insanity and crime is largely an economic or sociological problem. Statistics prove that when the cost of food, clothing and shelter is low, crimes against property diminish at a remarkable rate.

Hereditary insanity plays an important rôle in the production of criminals and seems to go hand in hand with alcoholic heredity. (And what is inheritance if not environment in its last analysis?) A child's brain is much more susceptible to poisons than that of the adult, and the transmission of alcohol in the milk of the wet nurse, where it has been introduced in the mouth, is a crime which should not be permitted. It is a crime not only against the helpless, unfortunate infant, but against humanity at large. Statistics prove that out of 2,800 of under-age criminals 7.4 per cent were found to be of alcoholic heredity. Out of 34 cases, criminals of different degrees, seven had insane fathers; two had epileptic fathers; four had insane mothers; while others had insanity in the different branches of the family.

CAUSES OF INSANITY

As to the causes of insanity, it may be summed up in one phrase: "crass commercialism," or our twentieth century mad rush for existence. We may, however, be "polite" about it and mention some of the contributing factors and apparently leading causes, viz.: (1) loveless marriages; (2) sexual abuse, venereal diseases, and sex ignorance; (3) "booze" (alcoholic indulgence); (4) adulterated food, lack of proper and sufficient food, and overeating; (5) vaccines and serums; (6) unnecessary surgical operations on the reproductive organs and the excessive use of opiates, "606" and other powerful drugs; (7) and the unscientific, abnormal, hasty, and competitive methods pursued by most humans in making a livelihood.

Among children we observe that the slave-driving, unscientific methods of our present educational system in schools—a system which does not take into consideration the individuality of the child—a system which piles its burden on all children alike, no matter what the nervous temperament or the physical condition of the child may be, a system which does not regard or consider the nervous stability of the child, are among the next important factors in the production of insanity in children. Thus we see that our economic, educational, legal, surgical and intolerant system of events are insanity-producing, and not until we begin to live naturally and become truth-loving and justice-loving can we ever hope to reduce the steadily increasing cause of insanity.

SYPHILIS—ITS ABNORMAL FEAR AND PREVENTION

If the great, anxious, restless, and feverish mass we call *humanity* only knew what a plague syphilis (also gonorrhœa) really is, to what extent and in how many insidious ways it is spread among the innocent, the people would rouse from their former superstitions and proud lethargy and take more interest in this timely health problem.

GENERAL CAUSE

When human sanitation—internal as well as external, mental as well as physical—is neglected, one's natural resistance to infection is lowered, and he becomes susceptible to syphilis as to any other filth manifestations. During this low state of vitality (no matter how "healthy looking" or robust a person may be) syphilis can be acquired, not only through a direct medium, such as illicit coitus, but through such apparently "harmless" and indirect mediums as contaminated closets, tools, toilet articles, wearing apparel, stained sheets, hanging straps in street cars and drinking cups.

THE TREACHEROUS NATURE OF SYPHILIS

Still more sad is the situation when we learn that even children are not exempt from contamination by this loathsome disease through channels other than

heredity. For example, through oft kissing, vaccination (Dr. L. Duncan Bulkley, in his book on "Syphilis in the Innocent," cites 1,863 cases of syphilis in children as a result of vaccination—"Dr. Foote's Home Cyclopedia"), syphilitic wet nurses, and through similar channels.

Do not these facts as to the frequency of transmitting syphilis to the innocent children make one realize the immediate importance of eliminating *false modesty* and inaugurating a campaign of education? Is it not more rational and human to impart the truth about sex problems to our innocent youth than to permit them to grow up in ignorance and stupidity so that later they fall an easy prey to sex perversion and abuse, which drains their nerve force? And think of the innocent, loving babe born into the world blind, deformed, and a weakling because it has inherited from its parents (usually from the father) "germs" which may be termed *baccillus ignoramus* and *baccillus false modesticus*.

Equally as horrible is the sad truth that thousands of innocent married women have operations on the ovaries, womb, and fallopian tubes, and that many of them die during the operation or soon after as a result of syphilis transmitted to them by their husbands. Any human being with a heart, brain, and conscience who knows these truths and does not raise his *voice or pen* in *protest* for these innocent ones whose weak voices have long gone unheard (except for a "whisper") has the manhood of a kitten and a conscience about the size of a peanut.

Worse than all is the deplorable fact that the young husband often does not even know, before

marriage, that he has syphilis. He is unconscious of the fact that he transmitted this filthy condition to his wife and offspring. Is it not time that we demand legislation toward "a clean bill of health" prior to marriage? (Read chapter "Venereal Disease, Prostitution and Vice Prevention.")

THE WASSERMANN TEST FOR SYPHILIS

The Wassermann test or reaction as a diagnostic method has become part of the usual routine with many. It is just as reliable a test for syphilis as would be the inoculating of powdered popcorn or cranberry sauce into the blood-stream of a human being to find out whether or not he has the measles or gout. Many patients who *never have had syphilis,* on whom the Wassermann blood test has been tried out, have proved to be *positive.* Then again, in patients *who had* syphilis it resulted in a *negative* reaction. This sort of "reliability" is so unreliable that the continuous employment of it in the name of science only desecrates the term science and makes a mockery of those natural, physical tests which really are, comparatively speaking, reliable. Think of the inconsistency of believing syphilis to exist when the reaction is positive, and then, in conformity with the same test, to deny its existence when the test reacts negatively.

It is even claimed by some investigators that the reaction may change twice or more in the short space of only two or three months. What value can be attached to such a test? And yet diagnosis is based, many times, on just such procedure. Is it any wonder that many who, not having syphilis, are treated

for it, have their nervous systems destroyed, blood system and heart deranged, by the contra-indicated use and abuse of mercurial drugs and this "panacea" commonly called "606"?

TREATMENT

Many physicians are still depending on artificial measures such as "606" and the like for the "cure" of syphilis. Such measures as cleansing the system, keeping it clean by proper eating and fasting occasionally, drinking distilled water, bathing often, breathing properly and living normally in general are neglected or considered of secondary importance. The truth is, we should never treat *a disease;* we should treat or care for the patient. Let *nature* cure the "disease," or that group of symptoms we call diseases, the doctor looking after the symptoms only, by such health measures as are indicated. There is no stereotyped recipe for the treatment and cure of syphilis.

Until recently there were three "recognized" theories regarding prevention, cure and mitigation of syphilis: 1. Abstinence from prostitution; 2. Certain mercurial salves to be employed as preventives; and 3. Regulation of prostitution. They are still considered "good and binding" by some.

The first method is abstinence from prostitution. Yes: this idea is a very good one. Better still, we should not have *the causes* that make for prostitution which prevent the early marriage of thousands of healthy young people who would, as nature intended, procreate the race and uphold the "fireside," if they were able financially.

The second method proved unsatisfactory because most venereal infections in men are acquired while in a state of alcoholic excitement, and it stands to reason that when a man is intoxicated he does not think far enough to protect himself by such methods; second, because the physical system of some patients does not tolerate mercury or any of its compounds. In fact, "calomel doping" and continuous use of mercurials among other things will sometimes cause salivation and loosen the teeth from the roots.

The third method has been police regulation of prostitution. In the light of the "critique of pure reason" it will not be effective, if by this is meant merely the examination of the prostitute. But if we were to add an examination *of him*,—the male, so that he cannot enter a home of ill fame unless perfectly well, then regulation will begin to regulate. Medical, hygienic and police regulation (isolation or segregation) in conjunction with a systematic campaign of education, and giving the people good economic conditions will take care of the problem of prostitution. This method if adopted in its entirety would be a much better plan than the hypocritical, "camel's-head-in-the-sand" method, which is the case to-day.

"606"

If mercury is a specific in the treatment of syphilis as some physicians still claim, then why in the name of consistency and common sense did they welcome with such wild enthusiasm and open arms, this new preparation, brought all the way from Germany, commonly known as "606"? The technical name for

this destructive and detestible arsenical compound is *Dioxy-Amido-Arseno-Benzol.* But it never did prevent, does not prevent and cannot prevent nor cure syphilis. For those of my brother physicians who still believe in the efficacy of "606" and the like, I have nothing but good will, yet I hope that they will sometimes find time to study *both* sides of the question.

Prof. Jno. King—physician, chemist, and scholar in an article written in the year 1846 and reprinted in a recent number of *The Gleaner,* in part, says: "In the form of an oxide then, is mercury carried into the mass of blood, to be thence circulated to every part of the system. Combining with the phosphoric acid of the bones, a phosphate of mercury is formed, leaving the bone in the state of an oxide of calcium, or common lime; the bony structure being thus chemically decomposed, crumbles and exfoliates.

"A similar combination with the phosphoric acid of the nerves and brain, produces nervousness, severe pains, loss of memory, headaches, etc., and as the changes of the atmosphere act upon mercury in any state, the suffering patient can predict the various changes about to take place in the weather, with as much precision as could be derived from the most delicate barometer.

"The oxide of mercury is capable of producing decomposition to some extent in every fluid or solid of the human body. And if any gentleman of any school can disprove the above explanation of the *modus operandi* of mercury, I trust you will allow him the use of the columns of your journal."

THE ABNORMAL FEAR OF SYPHILIS

The abnormal fear of having syphilis in those who suspect "something wrong" has helped to prolong this and other such blood impurities, for years —some even die from *complications* that have developed as a result of fear, aggravation and worry; whereas, it would, probably, have been cured, within a few months, if nature had been given a chance at the outset.

VENEREAL DISEASE, PROSTITUTION AND VICE PREVENTION

It is a difficult matter to conclude whether sexuality or hunger plays the more important rôle in the life of a human being. Sexuality, without question, is one of the most, if not the most, powerful factor in the individual as well as social existence. By it are first awakened the feelings of love for one of the opposite sex; later for children, and last for all humanity.

A normal sexual life leads to the development of virtue and even to self-sacrifice, but if it is not properly guarded, it may degenerate into powerful passions and develop the gravest vices.

Sexuality, aided by mental control, awakens noble feelings, which, notwithstanding their sensual origin, elevate man to appreciate beauty, fine distinction of right and wrong, and creative expression. As a philosopher said: "Were man to be robbed of the instinct of procreation and all that arises from it mentally, nearly all poetry and, perhaps, the entire moral sense as well, would be torn from his life."

In the primitive stages of man's development, man and woman were not ashamed to go naked. Even to-day savages go almost naked. The Polynesian and Australian savage furnish good examples. (Even the "Broadway savage" is usually half

dressed.) Among these tribes, the female is the ordinary property of the male. In such sections of the earth woman is considered merely a chattel, a ware that can be bought and sold. The higher the order of society the less enslavement there is of women; the more wooing develops on the part of man and more respect and love for each person is manifested. The day will yet come (when man becomes truly civilized) when "democracy of the fireside" and "republicanism of the family" will be living realities, instead of fantastic dreams, as is the case of to-day.

On the subject of *Sex*, Dr. Frank Crane in the Associated Newspapers, in part, says:

"There is nothing essentially impure about the sex feeling. There is nothing necessarily wrong or inconsistent with the finer things of life, even a high development of spirituality. On the contrary, the most beautiful, the most refining, the most conserving and wholesome elements of a man's or woman's experience are due directly and indirectly to this natural instinct. . . . It seems to be the law for human creatures that every privilege is attended by its danger, and the higher the one the lower the depths of possibility in the other. . . . Hence it is that of all perverts, the sex pervert is the most incurable, the most wretched in his own penalty, and the most septic toward society.

"Every boy and girl has a right to be fully informed as to the meaning of the universal instincts within them, of the results of the sum of human experience in dealing with them, of their physiology and psychology, and particularly of their relation to the social and spiritual life. Not to equip a young

person with this information is to do him or her a grievous wrong."

HORRORS OF VENEREAL DISEASE

The subject of venereal disease, vice and its prevention, is a more serious and larger problem than most people realize. Some never even give it a thought until it attacks their own persons or enters their homes. It is the greatest curse to mankind. It is the duty of every intelligent person to gain a knowledge of the startling facts and lend their humane efforts to eliminate and drive out this social and economic disease from our midst.

It has been estimated that venereal diseases cause the death of two hundred fifty thousand people directly and indirectly each year. They cost the lives of five hundred thousand prostitutes every six years. One-eighth of all human disease and suffering is due to these. Sixty percent of all males are at some time in their lives diseased with them. Sixty percent of the inmates of our insane asylums are there because of them. Eighty percent of children born with sight, but blind within a few days, owe their misfortune to this curse. From 20 to 25 percent of the inmates of the blind asylums are there because of gonorrhœa. Gonorrhœal infection of innocent children is becoming serious, some cities showing 800 to 1,000 such infections each year. Gonorrhœa causes 60 percent of unwillingly sterile marriages. Approximately 80 out of every 100 women who die of diseases of the reproductive organs have been infected innocently.

In a book entitled "Commercial Prostitution in New York City," astounding revelations are made by trained workers under the Bureau of Social Hygiene, covering ten months in 1912. In this investigation the activities of 6,750 street walkers and 8,167 house prostitutes were looked into. Over 1,000 places given to prostitution were examined, and it was shown that 150,000 men daily patronized the public women of the city.

An examination of the inmates of Bedford Reformatory, all prostitutes, showed that 90 percent had syphilis or gonorrhœa, while 170 of the girls had both diseases. Can we grasp the full meaning of this terrible statement? Of course, physicians do, and realize that prudishness plays the more important part in keeping such facts from the public eye. One fact is significant; that our youths are the greatest sufferers, and by marrying, transmit the disease to their wives and offspring.

From publication No. 147, prepared by the American Social Hygiene Association, and distributed some time ago by the War Department, the writer quotes: "Venereal diseases were four and one-half times more prevalent in the regular army during 1916 than their nearest rival, measles. The annual disease rates per 1,000 men in the United States for all acute infectious diseases in 1916 were as follows:

Meningitis	.29	Dysentery	2.97
Typhoid, etc.	.52	Malaria	12.52
Scarlet Fever	.59	Measles	20.29
Pneumonia	2.59	Venereal Diseases	91.00

From an article, "Can We Stamp Out Venereal

Disease?" in *Physical Culture* (December, 1918), by Admiral Cary Travers Grayson, M.D., Ph.G., U. S. N., we quote the following:—

"Although the medical men of the military establishment by reason of their experience in the examination of recruits, were more or less prepared for the prevailing percentage of social diseases among young and middle aged men, yet civilian physicians were astounded when the draft medical examinations disclosed the fact that in some groups accepted for service during given periods, there were found to be, in round numbers, as many as 400 cases of venereal diseases admitted to sick list to every 1,000 men, 40 per cent, or four men out of every ten recruits. This approximates in excess of 20,000,000 cases in the United States. . . ."

These statistics are grave indictments against our highly developed civilization ("syphilization"). Something must be done before the entire race exterminates itself from loathsome diseases.

PROSTITUTION

The prostitute is a product of environment. No girl becomes a prostitute out of mere innate wickedness. They become prostitutes through force of circumstances. In large cities many people are compelled to live in tenements which are overcrowded. Not only are families compelled to live in too close proximity to each other, but they are compelled to live in too small quarters. Frequently a large family is crowded into one or two rooms. Sometimes families living in one or two rooms are compelled to have boarders and roomers in order to eke out an exist-

ence. Of course, they are not to be blamed for living thus. They are helpless. Neither do I mean to say, that they are all bad. It is marvelous how many of them retain their sterling qualities and virtues in spite of these conditions. This overcrowding is an invitation to immorality. Frequently, professional prostitution is carried on in these tenements, to the abject demoralization of the many children who live in them.

Another factor that makes for prostitution is the miserly wage paid in industries during "normal" times. Many of the women and girls find it impossible on so small a sum to pay for board and lodging and keep their personal appearance up to the standard which their employers require and which their own impulses dictate.

There are also women and girls whose incomes are large enough to pay their expenses, who have steady employment, but whose lives are joyless and barren because of the monotony of their never-ending toil and because of lack of social pleasures and mental recreation. Some of them become psychically ill and take to prostitution to relieve the monotony of their lives. There are panderers and procurers of both sexes whose regular occupation lies in laying snares for innocent, ignorant young girls, leading them into lives of shame.

INTERESTING STATEMENTS

"Even those who deliberately, and of free choice, adopt the profession of a prostitute do so under stress of temptation, which few moralists seem to realize."—General Booth.

"The commercial prostitution of love is the last outcome of our whole social system, and its most clear condemnation. Here there is no solution except the freedom of woman—which means, of course, also the freedom of the masses of the people, men and women, and the ceasing altogether of economic slavery. Only when the free woman is honored will the prostitute cease to exist. The whole evil of commercial prostitution arises out of the domination of man in matters of sex."—EDWARD CARPENTER.

"These women are recruited from those who are out of work. Again: Is it not the duty of society to prevent these girls from falling into the mire of corruption and vice? I have often heard patients say: If I had been taught to earn 3 or 4 francs a day I should never have gone on the streets."—FOURNIER.

"Our sexual anarchy is the result of masculine autocracy, as Russian anarchy is the result of Tsarism. In factories, shops, etc., the average wage of women is 2 francs 20 per day; but in domestic service it is only 1 franc 10, or even 90 centimes! Is it to be wondered that they have recourse to prostitution? We must first strive with all our might to destroy the all corrupting supremacy of private capital and wealth, with its exploitation of human life and energy; and we must further combat the use of all narcotic poisons, especially that of alcohol. We must not rest until these two deadly monsters are overthrown. We must also restore to woman the same natural and equal rights possessed by man."—FOREL.

These quotations, be it noted, are from men of

international reputation. Booth is a theologian; Carpenter, a poet; Fournier, a physician; and Forel, an alienist and specialist on venereal diseases. And yet these men—who represent conflicting schools of thought—virtually unite in attributing prostitution primarily to poverty.

Artificial or would-be philanthropical magnates pretend willingness to do *almost anything* for the prostitute; they will pray for her; organize missions for her; hold indignation meetings concerning her; plead with her; incarcerate her in the workhouse; fine her; medically inspect her (leaving her clients scot free to infect her); weep crocodile tears over her; denounce her as a wilfully corrupt creature; and then glorify her as the innocent, helpless betrayed victim of man's inhumanity and beastiality. But what they *will not do* is to give her a legal right to work for a minimum wage of, let us say, $15 per week. But then, you see, prayers and the like are extremely inexpensive; whereas, in order to keep our 500,000 happy go (un) lucky girls employed at $15 per week our "philanthropic" brothers would have to "cough up" millions of dollars each year.

Since venereal diseases continue to spread like a devastating pestilence and strike down healthy wives, who are infected by their husbands, thus causing them untold misery in the shape of ill health, operations, and constant sterility; since in addition we also have to consider the effects of the poisonous "remedies" such as "606"—remedies that are worse than the disease; since over and above all these considerations the welfare of unborn generations is involved in this question; since, in short, that all means

employed by society for preventing these diseases have hitherto hopelessly failed to arrest the spread thereof amongst those who deliberately incur the risk of contagion *and the consequent infection of the innocent*, it behoves us, in the name of and for the sake of *Humanity* in general and *Posterity* in particular, to give the widest possible publicity to the problem of venereal disease and its prevention.

MASTURBATION

Before discussing the prevention of venereal disease and vice, a brief comment regarding self-abuse or masturbation will be timely. When we stop to realize that the very foundation of our modern social structure—that is, the maintenance of the family and the continuation of human life—depends upon the preservation of the sexual instinct, and that its perversion and misuse are most virulent factors in the disintegration of the individual and the race, then we can better appreciate the significance of this vital problem.

Man cannot err against the dictates of nature without paying the penalty for his lapse sooner or later. The penalty exacted for masturbation (if continued) is one of the most serious and awful in its nature. To begin the career of manhood by the abuse of nature's functions, and that, too, when the system has not completed the powers of its organism, is contrary to all the rules by which health and happiness may be attained. It is a vampire feeding on the life blood of its victims. It not only occasions impotency, but it destroys the excitation itself, by

which the process is induced, and the feeling which led to it are maintained.

PREVENTION AND MITIGATION

For the *prevention* and *mitigation* of vice and venereal diseases there are a number of suggestions to be considered:

Economic. The most significant cause or factor in producing prostitution and the resulting venereal disease is the economic circumstances of both male and female. Every female worker, whether married or single, should be endowed with the legal right to work for a minimum (and why not maximum?) living wage. Most women in normal times receive small wages, and so the temptation for vice becomes great according to needs for necessities of life. The average young man of marriageable age (20 to 25) receives small wages; sometimes he is only an "apprentice" or "learner" at this age and cannot marry, as he should and probably would, if he could; hence an unbridled sexual desire paves the way for the companionship of prostitutes. Eventually he falls a victim of gonorrhœa, syphilis, and other venereal diseases.

Sanitary lavatories, closets, and recreation rooms should be installed in all factories. The best ventilation and lighting system should always be had.

The dinner or lunch time should be two hours instead of one, and never less than one hour and a half.

A work day should never be longer than six hours. There should be no less than four shifts. The piece-

work or "hurry-up" systems should be abolished. The same may be said of "overtime" work, which devitalizes the nervous system irreparably more in one hour than normal labor does in four hours.

Lectures on health and on other vital subjects should be held weekly by different experts. Questions by the workers should be permitted and encouraged.

Social. In view of the fact that the normal social unit is the family, anything that tends to make family life difficult or mitigates against the morals or well-being of the members of a family should be prohibited. Laws should be enacted to prevent the building of rooms in flats that do not furnish sufficient cubic feet of air, and landlords should be obliged to obey the laws regarding sanitation.

Medical. A venereal disease clinic should be established, providing *all* the doctors of the community have an *equal opportunity* to render service. Furthermore, there should be no political, religious, school, or other prejudices dominating the clinic, as is usually the case to-day. The aim should be to give all persons of ability an equal opportunity, at specified times, to render community service. The poor should not have to pay for examination, treatment or medicine. Further, the patients should not be humiliated (by being made to wait for hours in the waiting room or stand in line), experimented on, serumated, vaccinized, or "chopped" in any way, without their knowledge or consent. If a clinic cannot be maintained along such scientific, humane and democratic lines it ought not to exist. We have too many of the "ordinary" kind now. (More about this subject under the heading of "Hospital Abuses,"

"Abuses of Surgery," "The Doctor and the Public" and "Ethics and the Doctor.")

Recreational. Relaxation should follow the strain and stress of labor.

Recreation facilities, comfort stations and bathhouses should be improved in all cities.

A recreation commission should be elected by the people (not by an "old fogy" committee) to see to it that the people have good, clean dance halls, theaters, art galleries, park amusements and the like.

Dens, "private booths" or side rooms in restaurants, cafés and saloons should be forbidden.

Sex Knowledge. Prudery should be set aside and education substituted for it. Prudery may be classed among the world's great degenerating forces.

Most children are permitted to grow into manhood and womanhood without a genuine knowledge of sex. They grow up in ignorance of the laws of life, finally their conception of sex knowledge becomes tainted with vulgarity. Seeds planted by vulgar minds are sometimes hard to eradicate. Parents should first know the subject of sex themselves; then answer children's questions relating to sex truthfully. There is no harm in keeping children innocent and free from sex curiosity as long as possible; but the parent should be the first to inform the child on this vital subject. Sexology ought to be taught in the schools to those whose parents do not object. Of course there should be different courses for different children, according to the environment, health and age. Special literature on the subject should be sent by proper city or state educational authorities to all parents who have children, with an aim in view of

first educating the parents, and second to secure their coöperation in this fight for a cleaner, stronger and healthier manhood and womanhood.

The last few years have seen *prudery* discredited, and the public, without wincing, has faced the truth. Public sentiment has been jolted into action by learning the startling facts formerly so carefully concealed. Publicity must continue, and with it an earnest effort to redeem the subject of sex from unclean associations and raise it to its proper high place. (Suggested readings: See "Higher Race Development," by R. Swinburne Clymer, M.D., Quakertown, Pa.)

Education includes the establishment of proper social relations. When respectable women cease to condone the indiscretions of youth, so called, and shall demand the same high standards from men as those which they themselves observe, fewer "wild oats" will be sown and a cleaner manhood, moral and physical, will be the result, for it is unquestionably true that young, ambitious men live up (to a certain degree at least) to the standards set for them by society.

"MODESTY"

When every pool in Eden was a mirror
That unto Eve her dainty charms proclaimed,
She went undraped without a single fear or
Thought that she had need to be ashamed.

'Twas only when she'd eaten of the apple
That she became inclined to be a prude,
And found that ever more she'd have to grapple
With much debated problems of the nude.

Thereafter she devoted her attention,
Her time and all her money to her clothes,
And that was the beginning of convention,
And modesty, at least, so I suppose.

Reactions come about in fashions recent;
Now girls conceal so little from the men,
That it would seem, to get back to the decent,
Some serpent ought to pass the fruit again.

—*Yale Record.*

The Segregated District. The segregated vice district of earlier days, with material improvements, would be preferable to the "scattered system" of to-day. We certainly are against vice and intemperance in *all* things; but we will not approve a proposition merely because a number of self-appointed moral censors believe so. Prostitution, white slavery, and venereal disease should be abolished. Mankind is sufficiently burdened already without having more plagues to contend with. The "ostrich method" has not and will not work. We have more venereal disease to-day than in the days of segregation, editorials, rigid laws, and certain statistics notwithstanding. I do not say that "segregation" will absolutely "segregate" or "cure" the situation—far from it. We shall have prostitution, vice and venereal disease just as long as the *causes* of prostitution and vice exist; and from present indications it will exist for quite a long while. Therefore, I say that the improved segregated district under present circumstances would be much more scientific, humane, and wholesome a method to adopt than the scattered plan of to-day.

In addition it must be demanded that the *male patron be examined prior to being permitted to enter the district*, otherwise segregation will not accomplish much. Even then this step should be only a *temporary* one, as distasteful as it is. Conditions under which people live should be so much better as to *prevent* possibilities of prostitution and vice in general.

The victims of venereal disease and the prostitutes, who are *themselves* victims of society, present a sad picture. They are, as a rule, scorned by friends, ostracized from society and condemned by nearly every one. They get little sympathy at best. Easily influenced by the elaborate statements made by physicians in their fake advertisements, they finally fall into various traps. Downtrodden and distracted, they often end up in the underworld, victims of "dope," followers of crime, and finally seek relief in suicide.

A clean bill of health, based upon a *thorough examination* of the whole body, would do much to prevent transmission of disease to innocent wives. It would prevent the marrying of thousands of young men and women who have had venereal disease and still have it in their systems. It would prevent thousands of innocent wives becoming diseased within a few months or a year of married life, many times leading to the operating table or untimely graves. It would prevent thousands of abortions, miscarriages, and deaths of infants during first and second years of life. It would prevent sterility, blindness, and insanity in a large measure. Yes, a physical examination (including urinalysis, etc.) should be a

condition precedent to marriage, for it would be a blessing to all humanity.

Not until we approach this subject in a more scientific and serious light, not until we are willing to admit the *real* causes and make an effort to eliminate them, shall we ever be much better off on this vital health problem, no matter how many books are written, lectures given, prayers uttered, and laws made. The subject has been clothed in too much mystery, due to false modesty, ignorance and the worship of Gold. Even to-day it is easy to be misunderstood and misquoted on a delicate matter as this one. We need an awakening; a greater enlightenment of the parent, and as a prerequisite, *a closer relationship between the child and the parent.* The father, in other words, must begin to give more attention to his children and less attention to his game of pinochle or baseball score. Too long have the people been kept in ignorance on this issue, as well as on *all health subjects* of importance. It must be made *plain* to the people, who *have a right to know* and who *must know* if we really expect to eradicate this menace.

SUMMARY

Good economic conditions, systematic education, wholesome recreation, segregated system, including an examination of the male as well as the female, and a clean bill of health prior to marriage would improve the present sexual chaos and do much to prevent and lessen white slavery, prostitution, venereal disease and vice in general.

INDUSTRIAL DISEASES

Despite the fact that modern industry is the inevitable outgrowth of natural or evolutionary laws governing the production and distribution of commodities; and despite the fact that it has reached a high point of efficiency in production as a result of improved inventions, organized team-work on the part of workers, and the harnessing of nature's forces and resources by means of a knowledge of the exact sciences (chemistry and physics), yet we cannot deny that this modern industrial institution has developed a chain of diseases which bruise, disfigure, poison, and paralyze thousands of workers daily. Further, since the machine has replaced the crude hand tool, the factory has replaced the shop, the city the village, disease is no longer an individual matter. Instead, it is now a timely social problem.

The whirling dust, poor illumination, inefficient ventilation, unprotected machines, maddening "hurry up" systems (piece work), and "overtime" tactics in industry send thousands of exhausted, dizzy and sickened humans to hospitals or to untimely graves. Further, many highly developed machines of to-day do not require *skilled* labor, hence the employment of cheaper labor, consisting mostly of women and children, who succumb more readily to industrial diseases because they are less resistant.

The *environment* of many workers has consisted largely in "a flat" (if he is fortunate in securing

one), the factory, mill or other place where he spends most of his wakeful hours; and the occasional "movie house." His so-called home (which desecrates the term "home") may be dismissed with the statement that it usually is a loveless, poorly illuminated, ill-ventilated, thoroughly unattractive and unhygienic place. Such a place breeds misunderstanding and indigestion.

In spite of improvements, the shop or factory is as yet the place where the workman spends the greater part of his physical energy and thought; where the best that is in him is usually stifled or crushed instead of being brought into play to produce really useful things; where the work necessary to energize his system would be pleasant and elevating, is, instead, usually a stuffy, roaring mill laden with irritating dust, or a factory where lead may cause paralysis of muscles and phosphorus produce necrosis of bone; or it may be a mine, full of noxious gases, likely to explode any moment and exterminate his life.

Worse still, there is the depressing consciousness of being "a cog in the wheel." This conscious and subconscious feeling, together with the uncertainty of employment, and the monotonous, eternal grind, crush the spirit of the worker, causing him to hate the work, the employer and himself. Is there any wonder that such environment, together with the feverish intensity involved, ravages the minds and nervous systems of many, causing "breakdowns," premature aging and industrial diseases?

"Before the advent of the present industrial system," says Maurice Korshet, M.D. (lecturer, writer and prominent surgeon), in "Diseases of Occupa-

tion" appearing in the *New York Medical Journal*, June, 1911, "the worker could adjust the work more or less to his individual requirement. Did a certain line of work not agree with his health, he could vary it accordingly. He lived and worked closer to nature, and occupational diseases were practically unknown. To-day the worker must be adjusted to the social urge of the machine. He must keep pace with the machine or quit. The workers, irrespective of age, sex, race, color, or creed, tend the same products, work the same hours, eat the same food, read the same papers, and see the same amusements. The everlasting sameness of it all is maddening and drives countless thousands into asylums, psychopathic wards, and suicides' graves. . . .

"Investigations have shown that when the work capacity of the body is taxed, fatigue products or toxins are elaborated, and that these toxins, circulating in the blood and acting upon the brain and muscles, are responsible for that tired feeling.

"Unless fatigue is checked by rest or abstinence from hard, intense work there ensues a condition which may be termed chronic fatigue. The worker is continually tired. If he is a mental worker he finds that he has lost interest in his work; he feels flabby and dispirited and cannot concentrate his mind upon any particular subject. If a manual worker he becomes enervated, his muscles lose their customary skill, resulting in botched work or accidents."

CHRONIC FATIGUE

A short while ago the press announced that the

British War Ministry received a report, analyzing the psychology of workers in munition plants. The report is by Dr. H. M. Vernon, an eminent British physician. On the subject of Fatigue he said:

"Fatigue is the main promoting cause of accidents, commonly attributed to carelessness, but more properly the result of weakened power to coördinate movements."

Chronic fatigue, as can readily be seen, creates a craving for stimulants such as alcohol, tobacco, tea, coffee, "classy" dinners, cheap amusements and sexual debauchery. It is even responsible, in a large measure, for weariness, vagrancy and degeneracy.

The author of "Timely Truths on Human Health" had occasion to treat thousands of workers during the war of 1914-1918 who worked "overtime." Every patient complained of various symptoms that bore a direct relation to their exertion and fatigue, as a result of "overtime." Not only does "overtime" cause fatigue and lower the vitality of a person, thus making them more susceptible to various diseases, but it helps develop an army of unemployed workers, causing restlessness, misunderstanding and the like. It also results in a loss of that productive power which should be utilized. Idleness is an abnormal manifestation. A healthy mechanism has no idle or useless parts.

AGENCIES DESTRUCTIVE TO HEALTH

Among the numerous agencies that have a destructive influence upon the body, other than fatigue, are:

1. *Mechanical dust*, as, for example, "fluff" in cotton mills, flour in flour mills and bake shops, and

small particles (or powder) of stone, coal, iron and steel which irritate the breathing mechanism, thus paving the way for groups of symptoms we term bronchitis, laryngitis, pneumonia and tuberculosis;

2. *Chemical dust*, as, for example, lead, copper and phosphorus, which eventually produce such symptoms as spongy gums, colic, nausea and paralysis;

3. *Poisonous gases*, such as *carbon monoxide*, which one is bound to come in contact with when working in certain processes of the manufacture of soda; in brick and cement works and in the building of tunnels, as well as in the smelting of iron in the manufacture of illuminating gas;

4. *Carbon dioxide*, from working in sugar refineries, paper works, starch works, and lime kilns;

5. *Ammonia*, the pungent vapor one comes in contact with while working in refrigerating plants, tanneries, and artificial fertilizer works, causing inflammation of the eyes and mucous lining of the breathing apparatus;

6. *Various acids* and *alkalies*, such as carbolic acid, paraffin and nitroglycerine, usually have a corrosive effect on the hands and arms of workers when immersed in diluted solutions of these substances.

INDUSTRIAL SKIN LESIONS

Industrial eczema may be formed by various industrial or occupational causes. According to Dr. Geo. Apfelbach, in "Medicine and Surgery," the following causes bring about eczema from the respective

substances with which the workers come in contact:

"*Painters*—Benzine, turpentine, strong alkali soaps, aniline, chrome.

"*Printers*—Benzine, mostly from cleansing rollers and type and from washing with benzine after work. Callouses on fingers of composers and machine operators may be due to turpentine and crude oils.

"*Chauffeurs*—Benzine.

"*Cartridge Makers*—Turpentine, mercury sublimate.

"*Battery Makers*—Acids, turpentine, chrome, and other irritants.

"*Photo-Engravers*—Bichromate acids, alkalies, pyrogallic acid, metol, silver nitrate.

"*Etchers*—Acids, chrome, asphaltum.

"*Tanners*—Chrome, lye, water, anthrax.

"*Washwomen* and *Scrubwomen*—Soap, water, chlorates, etc.

"*Cement Workers*—Mechanical irritation and weather.

"*Platers*—Copper solution, acids, cyanide solution.

"*Buffers* and *Polishers*—Mechanical irritation, rubber goods.

"*Machinists*—Lubricating oils, mechanical irritation.

"*Bakers*—Sugar, water and heat.

"*Bartenders*—Water, beer.

"*Solderers*—Acids.

"*Cigarmakers*—Wet tobacco.

"*Cabinet Makers* and *Finishers*—Turpentine, pyridin.

"*Florists*—Flowers, especially tube roses.

"*Slaughter House Workers* and *Butchers*—1. Anthrax. 2. Tuberculosis of the skin.

"*Wool Sorters and Workers*—Aniline, anthrax, bichromate.

"*Physicians, Nurses,* and *Health Officers*—Bichloride, phenol and formalin.

"*X-Ray Workers*—Ultra-violet rays.

"*Munition Workers*—Trinitrotoluene, dimitrobenzol and mercury.

"Where the eczema is due to mechanical irritation, as among cement workers, plasterers, buffers, relief may follow the use of gloves, in some instances, greasing the hands, or in some, by placing guards on the machinery. When the irritation is due to acid fumes, hooding tanks should be used.

"Of the chemicals employed in industry more harm is done the skin by benzine than by any other agent. Workers in benzine and turpentine should keep their hands oiled with lanolin and petroleum, or with equal parts of castor oil and vaseline.

"Workers in munition factories, especially those who handle T.N.T., dimitrobenzol and fulminate of mercury, must keep their hands clean. They should wear gloves."

Under the heading of *injuries* and *accidents* (while not "diseases" of industry in the ordinary sense), it may be stated, briefly, that approximately ten thousand lives are lost annually on our railroads, and about 35,000 wage-earners die annually as a result of accidents. These accidents and deaths are due, in a large measure, to fatigue, poor illumination,

whirling dust, lack of safety appliances, and unprotected machines.

WOMEN AND INDUSTRY

It has been estimated that there were several million women engaged in gainful occupations in the United States before the war. About one-half of this number were married. In some cases the woman has become the chief bread-winner, owing to illness on the part of her husband or because her cheaper labor has displaced him. Sometimes poor wages and high cost of living compel both the husband and the wife to go into the factory as a means of keeping the "home" together. The fact that several million married women are working in industry or in stores and the like means that there were several million homes practically broken up; that very little family life is possible; and that the children (if there are any) are left to grow up "any old way." Many a working girl, seeing her chum or acquaintance return to the machine soon after marriage, hesitates about marriage, with the result that she is liable to become discouraged and possibly become a victim of sexual vice and its trail of venereal diseases.

CHILD LABOR

Recent statistics show substantial improvements in the reduction of child labor, although it is far from what it should be. Only ten years ago it was estimated that there were over 2,500,000 children from the age of six to fourteen working in the mines, mills and factories of the United States. These children not only acquire the same habits, vices and dis-

eases as the adults, in the course of time, but they become stunted in growth and age prematurely. A child's place is in the school and playground. The children have a right to fresh air, sunshine, joyous companionship and education instead of being forced into mines, mills, or factories.

POSSIBLE REMEDIES

The cure for industrial diseases does not lie in the physician's office or on the shelves at the drug store. We must trace them to their cause. The physician who is really interested in abolishing industrial diseases becomes hygienist, psychologist and sociologist. Since disease to-day is largely a social problem, it should, therefore, be solved socially. Otherwise we will be giving merely temporary relief, while the causes of diseases are ignored.

We do not include, in such program, or favor in any sense a number of present-day "health bills" that are pending before the United States Congress and various state assemblies, such as the creating of a "National Department of Health"; "compulsory health insurance"; "compulsory examinations in the schools"; "compulsory vaccinations," and other such violations of our constitutional and fundamental human rights. (Read chapter "The Doctor and the Public.")

The causes of industrial diseases immediately suggest their cure. Fatigue, for example, including idleness, can be eliminated by employing four, five or six shifts. From four to six hours' real work is usually sufficient, from a physiological standpoint. If all adults who are capable of rendering useful

and productive service would do so, four or five hours' service daily would be more than enough. Despite this scientific knowledge, we still cling to the old inefficient system of working eight, ten and twelve hours out of twenty-four, leaving no genuine opportunity for normal relaxation, proper eating, reading, studying, thinking, or enjoying.

Furthermore, the destructive effects of such agencies as dusts and poisons can be eliminated by the erection of only clean, sanitary factories; dust can be removed by special ventilators; frequent changes of air, and the employment of special masks and respirators; and the instruction of the workers in hygiene.

Injuries and accidents can also be reduced to a minimum by the introduction of protective machinery, including every available safety appliance, proper instruction, and the employment of skilled labor.

Women should not work at injurious occupations, and should work fewer hours. They should not work in any factory during pregnancy. Child labor should be absolutely and unconditionally abolished. Then, and then only, will work become exercise, a pleasure and a natural right as it should be—and some day will be—for every healthy person.

KNIFELESS TREATMENT OF PILES (HEMORRHOIDS)

Thousands of people are daily being operated upon (surgically) for piles. We regard the usual surgical operation for piles as unscientific and unnecessary. Almost all cases of piles can be cured without the knife. The knife-*less* method is the most natural, wholesome, reliable, and permanent. It not only helps remove the effect (the piles), but it goes to the root of the trouble—the cause. It removes the cause, and as a result helps to remove the effects. At the same time the one who treats this condition teaches correct methods of living so that the victim of piles may prevent their return. In the surgical method, obviously, only the effects have been removed, the cause still remains, and in addition there is a debilitated condition which only predisposes one to the return of this hemorrhoidal condition.

From one of my own articles entitled "Knifeless Treatment of Piles" in the *New York Medical Journal* (December, 1918), I quote: "A hemorrhoid is a mass of varicose or dilated and sacculated veins at the anus and lower rectum, the usual situation being almost always the muco-cutaneous surface which joins these two structures. Hemorrhoids are internal or external, depending upon whether they are developed within the sphincter ani or outside this muscle. Piles are called open or bleeding when

they give rise to hemorrhage, and blind when they do not bleed.

"The external pile is a small, circumscribed tumor. Commonly there is more than one of these. They may be so numerous as to form a more or less complete circle around the anus. The color varies from dark red to purple; the surface is smooth or lobulated, and the consistency may be soft, hard or elastic, corresponding to the degree of vascular turgescence.

CAUSES

"The *predisposing causes* are sedentary and indolent habits, luxurious living, especially the use of highly seasoned foods, wines, and spirits; tight lacing; pregnancy; constipated bowels, and diseases of the liver. Residence in moist, warm and relaxing climates; soft, warm beds and cushions and overexcitement of the sexual organs may be classified among the predisposing causes. The *exciting causes* include anything which irritates the lower bowel, such as *straining at stool*, hard riding, and the use of strong purgatives, especially excessive use of aloes and calomel.

SYMPTOMS

"A sensation of fullness, heat, and perhaps itching, felt about the anus, are generally among the first symptoms. The swelling increases until small tumors form, which are sore and painful. These may be external and visible, or internal, and are often of a bluish color, and when inflamed are very sore and painful to the touch.

"The *diagnosis* of hemorrhoids is usually easy. It

is very common for people, however, to mistake a variety of diseases, including simple pruritis, eczema, prolapsus ani, polypus of the rectum, condylomata, and even fistula in ano, for hemorrhoids. The prognosis is usually favorable, particularly if the treatment is instituted early.

"There are various methods employed in the *treatment* of piles. The hygienic, dietetic, occupational and other environment of the patient should always be studied and corrected as may be found necessary. The patient should, as a rule, avoid coffee and tea, spices and highly seasoned foods; and the habitual use of beer, wines and spirits. The less meat eaten, the better. Sedentary habits and much standing, on one hand, and extreme fatigue, on the other, are harmful, as is also the use of cushions and feather-beds. A laxative diet, including bran bread or muffins, prunes, apples and the like, may be used.

"The pile itself should be carefully reduced and returned within the sphincter, an ointment being used in the manipulation, and this should be subsequently applied and properly retained by dressing. In cases in which the inflammation is very decided nothing can be accomplished until cold applications of water or ice are applied to the part and retained there. Satisfactory results are greatly favored by the patient going to bed. *Gradually increased dilation* of the rectum will sometimes bring about the desired results and will be helpful in almost every case. . . ."

ABUSES OF SURGERY

Few there are who will dispute the great progress that legitimate surgery has brought to mankind—but *the abuse of it* is so horrifying that it overbalances the good it has done and is still doing. While it is the aim of the writer to point out only the *abuses* and *avoidable* mistakes in surgery, he takes cognizance of the fact that many technical and practical achievements of constructive surgery have been accomplished. It is somewhat difficult, within the limitations of a popular dissertation, to go into details on the vast subject of surgery, and this will therefore have to be concise.

Almost everybody will recall some case where he felt that a mistake was made on the operating table, after which it was said that "shock" killed the patient, or "the operation was successful, but the patient died." The writer remembers reading of a case where a woman patient, after consulting a number of "leading" surgeons of San Francisco, was finally operated on for "abdominal tumor," which proved to be—"a mistake." Though the prominent surgeon of the largest hospital performed this "successful" operation, the "shock" nearly killed the victim. It was about eleven months before the patient was able to leave the house. Soon "a relapse" was followed by another operation. Still another operation was resorted to in order to give the

sufferer relief. After years of torture the poor victim of surgical abuse, or surgical mania, finally died. This is only one of the many cases that occur daily in our busy twentieth century.

The following quotations (selected from many similar ones) will surely be instructive, timely, corroborative and interesting to the intelligent reader, showing how surgical abuses are committed in the name of "science" and the "saving" of human life.

From a well-written article, "Nasal Obstruction in Children," by Dr. Otto Glogan, appearing in *American Medicine* (April, 1909), we quote in part: "Every period of medical science has its fascinating catch-words. Those of the present are appendicitis of the adult and adenoids of the youth. How many healthy appendices and how many strips of pharyngeal mucous lining supposedly adenoids, may have been victims of bold science! . . ."

From an address, "Surgical Outrages," by Dr. J. L. Wiggins, delivered to the Ohio Valley Medical Association at French Lick, Indiana, November, 1908, and published in the *Lancet-Clinic*, November 14, 1908, we quote: "Things which were permissible or even commendable under past conditions are at present high crimes or misdemeanors. With all the opportunities now available in morgues and clinics to see and study living and dead pathology, there exists no excuse for repetition of our former mistakes. We know that it takes more than the ability to cut and sew to make a surgeon. We know that a recent graduate, except in rare instances, is not competent even to operate. We recognize the wide distinction between the words 'operator' and 'surgeon.' We

know that skill, confidence and judgment in any vocation come from constant repetition. We know that we, as individuals, would not select the occasional operator for ourselves or our families in any matter of serious import. We are capable of protecting ourselves; are not the public entitled to like protection?"

From an article, "Unnecessary Amputations," by Dr. W. Louis Hartman (of Syracuse, New York), published in the *International Journal of Surgery*, February, 1909, we quote:

"One can just as well amputate some hours or days after injury as at once, and this without menace to the patient, and, on the other hand, save many members which are unnecessarily sacrificed. . . . I do not know of any problem in surgery where good judgment and conservatism should prevail more than on this question, when to amputate and when not to. I do not think internes in hospitals should ever be allowed to amputate without the counsel of the surgeon, as they are very often too eager to operate and their experience has at this time been insufficiently ripened to have the good judgment of the experienced physician."

From "Medical Chaos and Crime" (a book that should be read by every surgeon in America), written by Norman Barnesby, M.D. (published by Mitchell Kennerley, New York), I quote only one case (out of many) with some of the author's brief comments:

"In the preceding chapter I gave a number of shocking examples of bad surgery as performed by surgeons or by careless, inexpert operators. It would be unfair to these blunderers, however, and misleading to the public, were I to omit the mistakes and catastrophes of the higher men in the profession. Here it is hard to say just what measure of blame to apportion. All men in all professions make mistakes at times, even with the greatest care and devotion to duty. But

some great surgeons, notwithstanding their brilliant achievements, are notoriously careless and indifferent to the lives of their patients. The following cases are instances of such carelessness; otherwise I would not have recorded them.

"I was once invited to a surgical clinic held by one of the most noted surgeons in New York City. Expecting to see something out of the ordinary, I attended, and certainly was not disappointed.

"A woman was to be operated on for some kidney trouble, and the surgeon, after a lengthy discussion of the case before a number of physicians, stated that he would not operate if he were not sure that the diagnosis he had made was correct.

"The operation was performed, but the kidney proved to be absolutely normal. This surprised the surgeon, and turning to the house surgeon he inquired for the history chart. After looking it over he exclaimed: 'Who prepared this patient? I thought you told me it was the left kidney!' There was an awkward silence for a few seconds, whereupon the humiliated surgeon, recovering his self-possession, put back the left kidney and sewed the woman up. Then he had her right side sterilized, and operated upon the other kidney. . . ."

ABUSE OF ANESTHESIA

Patients have been abused, operations encouraged and fatalities increased because of the careless administration of anesthetics (chloroform, ether, and the like) by the untrained anesthetist. Anesthesia has made some surgeons believe that the knife was of supreme importance in surgery, and that almost all disease could be "cut away" or "cut out." No wonder we sometimes hear the phrases "artistically murdered" and done "with good intentions."

From an article, "The Anesthesia Peril in American Hospitals," by John B. Roberts, M.D., appearing in the *Therapeutic Gazette*, February, 1908, we quote, in part:

"During a recent visit in a metropolitan medical center I was shocked at the reckless manner in which general anesthetics

were given. Observations during my surgical life in some ten or more hospitals in which I have operated has convinced me that a protest against the methods often pursued in American hospitals is urgently needed.

" . . . I cannot avoid the conclusion that no inconsiderable number of deaths attributed to post-operative shock are instances of anesthetic death, due to a pre-occupied operator and an ignorant or careless anesthetist. I have sat on clinic benches and stood near operating tables more than once with thankfulness in my heart that the safety of no friend of mine was then in the hands of operators and anesthetists so indifferent, or so oblivious, to the risk of ether or chloroform."

There have been times in which it was more difficult for the patient to recover from the effects of the chloroform or ether than from the operation itself. One may have the vitality to withstand "the cutting," but may succumb to the influence of the anesthetic. Sometimes a careless surgeon forgets or neglects to make a thorough examination in order to ascertain whether or not the patient can withstand a particular anesthetic. Millions of people are thus mutilated or "chopped up" as though they were steaks, on account of ignorance or hasty action on the part of some surgeons. In fact, there are too many surgical operations to-day. We resort to the knife too hastily. Many times we find that the surgeon has been wrong in his diagnosis. Many cases diagnosed as appendicitis are found not to have been appendicitis in the first place, and could have been treated successfully without an operation. The same holds true with much surgical diagnosis and operative procedure generally.

Most surgeons are not dishonest, knife-maniacs or willful homicides. Many of them, however, are strongly biased in favor of the knife, and seem to

ignore natural laws, which alone are the true healer in all disease. The beneficent and inherent natural healing power of man never errs, neglects nothing, ever acts intelligently and is curative in its efforts. Nature operates in a certain way: find that way, *live it*, and you have health.

ASEXING WOMEN

Surgical *mutilation of women* is becoming a common daily practice. One of the frequent, nevertheless outrageous, mutilations is the cutting out of the ovaries. The indiscriminate cutting out of the female sexual organs ought to be prohibited by law—and some day will be.

Statistics of unsexed women show that 78 per cent suffered notable loss of memory; 60 per cent flashes of heat and vertigo; 50 per cent became more irritable; 42 per cent suffered mental depression; 10 per cent verged upon melancholia; 75 per cent a diminution of sexual desire; in some instances the opposite was true; 12 per cent noted a change in their voice; 15 per cent suffered irregular attacks of skin disease; 25 per cent had severe headaches; 5 per cent suffered from insomnia; and many finally went insane. The loss of such a vital organ cannot be replaced, and although the poor victim of the knife may for some time imagine or be made to believe that nature has been aided by the destructive operation, she soon learns her mistake and wishes she had learned the truth earlier.

Not so very long ago *organ substitution* or *organ-transplanting* was in vogue. It was an "interesting"

idea. It was a "discovery." (According to recent announcements in the press, interstitial glands from monkeys are to make their "début" in the human system.) The idea was to transfer an organ from one animal to another and "attach it" so that it would work as heretofore. If you doubt the scientific importance of this surgical fad, it is only another evidence that you will live longer.

The removal of a weak or even diseased vital organ does not constitute a cure. The extirpation of a vital organ deprives the individual of an organ required in the natural process of living. The removal of an organ creates a disturbance in the whole organism, and it would seem logical that only a positive guarantee of future health or the saving of life might justify such an act.

Some surgeons claim that some organs in our body are of no use anyhow, and might just as well be "cut out" since "it may bother you later." In other words, they desire to improve upon nature's "poor job." Because we do not know the purpose and functions of various organs in the body, does it mean that you must suffer by experiment? Does the inability to obtain a cure by means of routine methods or because certain patients have not the patience to live naturally in order to regain health, grant the surgeon right to deprive you of a vital organ?

When we bear in mind that not over three or four per cent of all the so-called surgical cases really require operations, we realize the trend of surgical "success" and the lack of knowledge of natural laws

and true science and art of healing even in this day.

TONSILS AND ADENOIDS

One of the abused surgical operations to-day is the "clipping off" of the tonsils and removal of the adenoids. School children are the usual victims in these cases. They are sometimes told that "tonsils are a nuisance anyhow," and that they better "come out." No one will dispute the fact that swollen, irritated glands in the throat are a nuisance or very bothersome, but this inflamed organ is usually only a local symptom of general or systemic auto-intoxication. The accumulated waste in the bodies, which manifests itself in the form of swollen tonsils or adenoids (especially when irritated and hastened by mouth breathing), is due, primarily, to our customary abnormal methods of eating and living. Mouth-breathing, instead of breathing through the nostrils, hastens the irritation and "swelling" of tonsils and adenoids. Other factors, such as vaccines and serums, soon after inoculation, have a tendency to irritate and enlarge the tonsils and adenoids.

The tonsils belong to the glandular system and have, no doubt, a definite function in the assisting of nature to eliminate part of the continuously accumulating waste in our system. It is probable that they act as protective filters in the throat by not permitting filth agencies to enter the windpipe, bronchial tubes and lungs. The removal of the tonsils does not necessarily mean that they will not grow again, any more than the removal of piles (hemorrhoids) means you are cured of them.

The *adenoid* glands (a sort of "second cousin" to the tonsils) are important tissues located in the nasal passage, and are subject to the same abusive treatment on the part of their owners as the tonsils, hence at times also become irritated and swollen. Irritation in them is a common affliction of children who breathe through the mouth. These gland-like tissues are there not for fun, nor to be taken out every other season; they have some function to perform. If extirpating them would give immediate local relief it would be no reason why they should be removed. Other disorders of a more serious nature follow, many times, as a result. The cutting out of adenoids or tonsils is not *correcting* or *removing the cause* of enlarged tonsils or adenoids any more than the cutting out of piles from the rectum will remove the cause of piles. The surgical operation merely removes *the effects* produced by causes which usually remain after the effects have been removed. And unless the *causes* of enlarged tonsils and adenoids are treated and removed, the effects will always be the same. Unusual abnormalities of the tonsils or adenoids producing feeble-mindedness or otherwise deranging the normal functions of the system may justify operating, if the usual simple methods of treatment and correct living have been of no avail. Proper nasal breathing, wholesome food, and a simple hygienic life in general will maintain such vitality and clean blood stream that swollen and inflamed glands in the nasal passages will be impossible. But the violation of nature's laws will certainly bring about auto-intoxication, with its inevitable low vitality or lack of normal

resistance power, manifesting itself in various local or constitutional symptoms. And remember this: What once has been cut off (or out) can never be restored.

APPENDICITIS

During the past quarter of a century a new surgical fad has come into being. You may almost guess what it is—*Appendicitis.* Tons of literature have been written on the subject; statisticians have been kept busy, hospitals erected, "new diseases" found, textbooks written, colleges born, operations performed, and premature graves dug—and filled—since the year 1886, when it was definitely determined by certain medical "authorities" that the appendix was the starting point of many inflammatory conditions found in the right lower quadrant of the abdomen. The "starting point" lies in gluttony, hurried living and sexual debauchery instead.

About thirty years ago when appendicitis was "as poor as a church mouse" as far as popularity or fame is concerned, it used to be known as typhlitis or perityphlitis. Since then it has been renamed appendicitis, which merely means that the appendix has been inflamed, irritated, or disturbed. Instead of making an immediate effort to assist nature by eliminating the causes of this usually simple abnormality, almost everybody in the family and neighborhood begins fretting, shivering and remarking: "Oh! he has appendicitis!" as if to say: "Well, poor fellow, he is a goner." Just about that time the surgeon is called in and says: "I'll take it out," and

sometimes he takes *the owner* of the appendix out also—never to return again. And all this is action incited by "good intentions."

Especially were *wealthy* people led to the operating table in the early days, when it was almost "an honor" to have appendicitis; in the days (some of you remember) when the press columns were filled with startling headlines regarding Mr. I. M. Weakminded, who had been operated on for appendicitis, and that Prof. Large Fee said to a reporter of the *Morning Eye-Opener and Alarming News* that if Mr. I. M. Weakminded continues to breathe 'til 8 P. M. he will have a very good chance to live! And some members of the family sighed and cried for his recovery from such a newly discovered, terrible "disease."

But recently you do not hear much noise about appendicitis. Almost *anybody* may have it now. Even a poor working man can afford an operation on the appendix—once in a lifetime. And what a pity that there is only one appendix! But do not let that worry you. It can be made up by taking out your ovaries, tonsils, adenoids, goiter, and other organs. And why can you not have a cancer, "displacement" or "adhesion" somewhere, from time to time? It has been said by certain "authorities" that you do not need some of these organs anyhow. They are in your way! Some claim that the appendix should be taken out of a child at the age of seven, even when he is in perfect health. Possibly it may be the style to "take out something" (not from the bank) every year or two because of the way you

treat, or *mis*treat, your stomachs, intestines and other organs. In such case, you really do not deserve to have them.

Some people still believe that appendicitis is due mainly to the lodgment of seeds, buttons, or other foreign bodies in the appendix and that operating is the only thing to consider. The fact is that seeds and other foreign bodies are found in less than one per cent of all cases operated on.

Merely because we do not know the exact function of this notorious scrap of intestine, called the *appendix vermiformis* in man, is no reason why it must be removed from the human organism. You will find that Mr. Appendix is a "good fellow" after all. I am sure that the appendix will never bother you if you do not bother it. And the best way not to bother it is to eat for nourishment, not merely to tickle the palate.

From *The Naturopath*, edited by Dr. Benedict Lust, I have before me a press report in which Dr. Jno. B. Deaver, one of America's most famous surgeons, declared a short while ago before the Northwestern Medical Society, the following:

"A medical student fills a graveyard before he becomes a surgeon, and I have filled several and do not call myself a surgeon yet. But I have found by long experience that a great many cases of appendicitis and gall stones do not need the knife at all, and many cases of appendicitis need little or no drugs, at the outset. In cases where I do operate I find the case is only begun after the operation, and I spend nights in worry after many operations.

"Out of over three hundred cases of appendicitis at the German Hospital, during the last few months there have been only six deaths. This is due not so much to skillful operating as to the care in avoiding the use of the knife.

"Operating for *ordinary* and *exophthalmic goiter* has become a common—too common—occurrence. Surgery takes it for granted that the thyroid gland is a useless organ, hence, removes it, when it shows any signs of disturbance, irrespective of its cause and irrespective of the harmful after effects."

On the subject of *Goiter*, J. H. Tilden, M.D., in his *Philosophy of Health*, says:

"For several years past I have endeavored to teach that auto-toxemia is the universal cause of all diseases, and there can be no good reason why goiter should be an exception to this rule. . . . When nerve energy is weakened, organic functioning is lowered. As a consequence, secretions are lowered, or rendered less potent in their influence on nutrition and excretions are retained, causing toxemia.

"The reproductive secretions are not only necessary for the preservation of the race, but they give to man his physical and mental potency. The ovarian or reproductive secretion of women not only enables them to be mothers, but gives them individuality and intelligence. The thyroid and mammary glands are auxiliary to the reproductive organs, and anything that influences, for health or disease, the reproductive organs influences the auxiliary organs. Just why in one woman a perversion of the reproductive function will focus on the thyroid gland causing goiter; in another, on the ovaries, causing ovaritis and profuse menstruation and leucorrhea; and in still another, on the mammary glands, causing swelling and sensitiveness of the entire breasts, is hard to tell. . . ."

Almost all surgical operations for disease could be avoided if proper treatment were given in time. Why not prevent surgical experiments by taking care of health? When the surgeon removes these so-called diseases he removes a symptom only. He leaves the *real* causes uncorrected. Unnecessary surgical operations will continue until the *people themselves* understand this timely and vital issue and take more interest in health problems in general.

HOSPITAL ABUSES

ARCHITECTURE

From their architecture some leading hospitals look more like rows of factories, jails, or warehouses than temporary homes for the sick and disabled. They have, somehow, the massive, solemn, air-tight and dull appearance of a fort or cotton mill. But it is needless to discuss the "anatomy" of hospitals. What interests the writer most, and what interests the people most, or should interest them, is what goes on *inside* of the hospital.

GROWTH

The hospital problem has become quite serious the world over. In the United States it assumes unusual proportions. We learn from statistics compiled by the United States Bureau of Education that in 1873 there were in the United States only 149 hospitals, with a total of 35,453 beds. Our modern civilization has increased the number of hospitals and beds quite a bit since then. We have now in the United States about 8,000 hospitals, having over 600,000 beds. About five hundred thousand of these beds are usually occupied. Just one-half a million human souls (not including soldiers who have recently been wounded and returned) are disabled and confined to beds and hospitals. Think of the agony of the patients; the families, dependents, and rela-

tives of the patients; their loss of productive power; their loss to the State and to all concerned except the hospitals, nurses, doctors, and undertakers. Why should one-half a million souls in normal times be confined to hospitals? And this does not include many sanitariums, health resorts and other places where afflicted, suffering humanity is being treated—and also mistreated—every day in the year. It would not be surprising to learn that over a million people are confined to institutions supposed to take care of the sick, disabled, incurable and the like. And all this in the most prosperous and Christian country in the world. Is it not a reflection on our so-called civilization instead of a credit to it? Why should it be so? What is wrong?

FINANCIAL INVESTMENT

It is interesting to learn that over one billion five hundred million dollars are invested in hospital property, and that does not include the value of the land. The upkeep of these institutions is more than two hundred and fifty million dollars annually. Would it not be preferable, more human, and scientific, to spend this vast sum of money for education? Let us suggest giving the children of the South a chance to go to a public school, instead of working in the cotton mills, where their tender bones, muscles, brain and blood are converted into dollars. Would it not be a good idea to send every young gifted person who so desires and has not the means for this, through high school and college? Would it not be far better to utilize most of this money for the building of good homes and roads in order to keep people

at work, and in that way reduce to a minimum the army of unemployed?

ABUSING PATIENTS

The writer's aim is not to decry or ridicule the work of hospitals—far from such; but every one recognizes that constructive, wholesome, and timely criticism which will disclose defective conditions is probably productive of more efficient service in the hospitals for those who are there. People have a right to the best that science has brought forth, and they are entitled to every consideration and courtesy as patients. The patient should be treated like a human being and not like a dog, as is often the case. We are merely voicing the sentiment of thousands of human victims whose weak voices go unheard. Ask, let us say, five friends or acquaintances who have been at the leading hospitals in the United States for any length of time and you will be surprised to learn how dissatisfied the majority are; how some will give as a reason for their *present* pain and disability the lack of proper food or attention while at the hospital. Those who unfortunately had to go to "free" wards will tell you all kinds of woes. I have heard them curse the ground upon which the hospital stands for the abusive treatment, mistreatment, or lack of treatment during their stay at the hospital.

EAR RECORDS

You will hear remarks like this:

"The first two days we had a good nurse; she

seemed to be prompt and kind; then she apparently left, and it was worse than h——."

"Everybody in our ward was given the same food. I did not eat it and the nurses got angry."

"I told the nurse and my doctor that I could not eat meat, especially in the morning, yet bacon was served."

"I rang the bell many times, and judging from the 'hasty' response, I felt sure every official, doctor, and nurse in the hospital was dead."

"I asked for water and was told I should learn to behave."

"I suffered agony almost a whole day, but I was told I must continue to wait until the doctor arrived."

"I asked to be moved from the groaning and crying patient next to me, so that I could get a little sleep, but no attention was paid to me."

"The orderly seldom paid any attention to me except when he received his tip."

"The nurse asked me to pray; and when I asked her whether this was a church or a hospital, she felt peeved about it."

"I asked if something could be done to relieve my pain without the injection of so many hypodermics, and was told to keep quiet and not try to be doctor and patient at the same time."

These and many other similar statements will ring in your ears when you stop to think of the remarks you have heard from all kinds of patients that have been at hospitals. The writer has had members of his own family at various hospitals; has had his own

patients at hospitals; has spoken to many patients that have been at hospitals, and to relatives and friends of patients who were at hospitals, and what he has heard would fill a volume. Every other physician who has had any amount of practice will tell you the same thing; so will a nurse who has served at the hospitals.

I have seen patients ring the bell over and over again with no response. I have heard patients say that they were forced to have bowel movements and void urine in bed, and then remain in terrible pain and in uncomfortable positions, because the bell, supposed to be there for help, was not answered. I have heard patients say they could hear the nurses and internes sing, dance, and joke in the corridor while they were deathly sick and waiting for a glass of water or a piece of cracked ice. Such is the conception of the word "*care*" in many of our "modern" hospitals in the twentieth century.

THE BILL

Think of a patient, who is suffering, possibly dying, being told that oranges or some similar article of diet is "extra," not included in the "regular" diet. What constitutes "regular" and "irregular" diet is quite a puzzle in many hospitals. The same seems the case with supplies. You are first told that it will cost you *only* $25 a room. When you glance at your bill you find that your appetite was more hindrance than help at the hospital—you should have left it home or somewhere—you had no business to have it. You may also discover that bandages are "extra," cotton "extra," plaster "extra," medicines

"extra," consultations "extra," and incidentals "extra." The only thing that was not "extra," or they forgot to put on the bill, was the noise of the patient next to you, the grumbling and the odor; and even for those you really paid. Think of the patient being told, "We'll have to order this for you." Many a time the doctor will prescribe the most simple medicine, and it will be "just out of stock." Think of a nurse hating the work of giving an enema, or bath, or spraying the nose for a patient and still retaining a position on the hospital staff.

EXPLOITING THE NURSE

The writer has never seen a hospital yet that had sufficient nurses or help generally. The night service is usually insufficient. The nurses cannot be blamed. The truth is that the nurses are usually underfed, underpaid, overworked, and mistreated. They often get the blame for the doctor's or superintendent's carelessness. They should work fewer hours and get much more pay—even while learning. In fact, the course of training—three years—is entirely too long. Six months to one year should be sufficient time for becoming an expert nurse if she loves the work and is intelligent. And if she does not love the work and possesses little intelligence, then she ought not to begin the study. A mere diploma means very little as an indicator of what's in a person's cranium. Graduation should not depend so much on years of training as on how capable the student nurse now is; whether she knows her business or has common sense besides her professional or technical training. The nurse should graduate as

soon as she proves efficient and not merely when she "passes" her "exams." Nurses should be given *individual* training as much as possible in conjunction with the general lecture courses. The individuality in the nurse should not be crushed, but should be permitted to grow and to develop. The nurses are, as a rule, an exploited lot. It used to be customary in some hospitals (and perhaps to-day) to send out a nurse while in training to treat a private patient at his home. The money received for such services went to the owners of the hospital. The nurse would probably get a "five spot" for her "excellent training," and about sixteen or seventeen hours' work besides. To have nurses in hospitals who can smile at you (as you expect of them), and do work efficiently and cheerfully, see to it that they are well paid *while training*, for it is hard work at best. See that they do not work more than eight hours in twenty-four; that they get plenty of good food;—the kind they themselves like, not the kind that is sometimes imposed upon them.

What was said of the nurses applies largely to the young internes. They are also exploited in the name of "training" or "practice" but not so badly as the nurse. The sad part about the young, well meaning interne is that he "knows more than all the doctors in town." He still worships his textbook; the pretty test tubes; beautiful microscopes; marble walls and the like. There is hope for him—he is still young. But meantime the patient may "suddenly become old," no matter how young the interne. A physician of about ten years' active practice ought always to accompany an interne until he has practiced at least

two years. (Read chapter "The Doctor and The Public.") With all respect to our zealous interne, the patients should always be given first consideration.

EXPERIMENTATION

No experimentation, or "trying-this-out" process, should be practiced in a clinic or hospital for human beings or even in a hospital for dumb animals, for they are also living creatures and deserve our protection. No human vivisection or sub-human vivisection should be conducted in a hospital because it means experiments upon dying children, the poor, the feebleminded, and the defenseless. Serums and vaccines should never be inoculated into "free ward" patients without first telling them of the possible dangers resulting therefrom.

THE "FREE" WARD

Think of not permitting a private physician to attend or treat a patient who is in the "free" ward of a hospital. The physician is asked, many times, by friends of the poor patients, to see the patient at the hospital, treat him, and see to it that "they" take good care of him. Those friends forget, or do not know, that "it is against the rules" and perhaps "inethical" to suggest any change for the welfare of the patient. If the patient should happen to die, the friends would have to be consoled with the knowledge that the patient died "within the rules," or "according to the rules and regulations." How better can one hope to die in some "free" wards? And yet, some men apparently die happier when they leave

in their wills vast sums for hospitals, "free" hospitals and for "free" wards. It is also a fact that even so-called "free" ward patients in many hospitals have to pay certain small amounts and usually two weeks in advance. In other words: when you once "get in" the hospital, you better count upon being away from busy civilization for at least two weeks.

THE "FREE" CLINIC

The abuse of the "free" clinics are numerous. Think of the poor patients standing in line or "waiting patiently" for many hours to see the doctor. They are sometimes told to come at 9 A. M., although the doctor in charge may arrive two hours late, or fail to make any appearance. Then the patient usually has to pay about 20 cents or more for his medicine in a "free" clinic. How about the free samples that are sent to the "free" clinics by chemical manufacturers for the benefit of "free" patients? Do not others besides "free" patients get them? And is not the manufacturer exploited if the patient never gets the bottle or package with its label so that he may become familiar with the patent or trade name of the medicine if such were the intentions of the donor? A great deal more could be said, but I shall leave other facts pertaining to "free" clinics to your own investigation. Further, is not the so-called "free" patient actually paying *more*, many times, when he surrenders his body (and his life) to the well-meaning interne or young, inexperienced surgeon or physician, to be treated or operated on? Is that not sufficient payment?

Ambulance service or "prompt" responses to tele-

phone calls are sometimes so "prompt" that the patient dies before the ambulance gets out of its cosy garage. You may be surprised to learn that some hospitals have no pulmotor (resuscitating apparatus) for their use.

Although the hospitals, free wards, free clinics, emergency staffs, and ambulance service do *some* good, their abuse and deficiencies remind one of the automobile generators, which do not generate and the automobile service which does not serve. I say this with all respect to my brother physicians who attend to hospital or ambulance service and to my brothers of the laity who are not supposed to know much about these things.

THE FOOD ISSUE

Another vital point is that of food. The food problem in many hospitals may be best described in one word, "horrible." People have been fed on stuff they could not digest; and in a uniform manner as if they were prisoners. One would infer from such dieting that all patients (in the "free" wards especially) had stomachs, intestines, and kidneys of equal capacity, strength, and ability to function. Instead of making a urine analysis, or finding out the likes and dislikes of the patient, he is handed over "grub" in a uniform, stereotyped, aimless manner. What a disgrace! One would ordinarily expect every hospital to have expert dietitians—people who are experts on food, but such is not always the case. There are only a few hospitals (comparatively speaking) in the United States whose managers know much about or lay stress on the matter of diet, and among the

few may be mentioned The Battle Creek Sanitarium, which the writer has investigated. The trouble, however, is that it costs so much at Battle Creek Sanitarium and at other sanitariums where diet is an important issue, that a poor man cannot afford it.

On the subject of food and general abuse of patients at hospitals, we shall here quote from only one press clipping, which speaks for itself.

JERSEY CITY HOSPITAL PATIENTS FED FROM TROUGH. SPECIAL NURSE IN INSTITUTION TESTIFIES AT HEARING. THE FOOD—NOT FIT FOR A SICK HORSE—MANY CASES OF ABUSE.

"I will resign as Mayor and close Jersey City Hospital rather than allow this condition to continue. I will not let these fellows stain me with their filth and corruption."

This statement was made yesterday by Mayor Frank Hague of Jersey City at a public hearing in the City Hall of complaints of conditions at the hospital. Serious charges of neglect and mismanagement were made against Superintendent John J. McDonald and the visiting staff.

Witnesses testified that patients in one ward were compelled to eat out of a trough on the floor; that contagious patients were placed in wards with others suffering only from injuries, and that filth and neglect which had resulted in several deaths were in evidence throughout the Institution.

It is believed in Jersey City that Mayor Hague will file with the City Commission charges of incompetency against Supt. McDonald. When seen last night by a *World* reporter, the Superintendent refused to make any comment.

Edward Lamb, a special nurse in the alcoholic ward, testified that it was his custom to place a trough on the floor and ladle out food to the patient, and that the special diet he had asked for at one time "was not fit for a sick horse." He said he knows of a patient who died thirty-six hours after leaving the hospital as a result of improper treatment while there.

Dr. Norman L. Rowe, of the visiting staff, in charge of maternity cases, told of women who had recently become

mothers being moved into public wards in which were cases varying from consumption to loathsome diseases.

Mrs. Ellen Keen, of No. 54 Kearny Avenue, testified that her son, neglected at the hospital, had slipped out of bed and had broken his leg, and that the doctors when told of it had merely laughed at him. Miss P. Howe, a private nurse, testified that conditions at the hospital were the worst she had seen in eleven years' experience.

Numerous complaints were made of delayed treatment in the hospital clinic, supposed to be open to the public certain hours every day. Mrs. Crosby, a maternity patient, testified she had been seriously neglected, that she had seen a nurse strike a woman who was screaming from labor pains. Testimony was offered by several others along similar lines.

THE MEDICAL CLIQUE

On another and no less important phase of hospital abuse, *American Medicine* (September, 1908), in part, says:

"The hospital problem is bound to call in the near future for serious attention on the part of thinking medical men. No one can deny that the development of medical eleemosynary institutions has been largely responsible for the progress of medical and surgical science. But coincidental with the growth of the hospital idea, grave dangers to the rank and file of the medical profession have appeared. In most communities where every one finds a hospital, there also will one find a small clique of medical men enjoying especial advantages and privileges by virtue of their hospital connection. Their less fortunate and influential colleagues are denied these advantages, and are proportionately handicapped in the practice of their profession. . . . Therefore if hospitals have not fulfilled their most complete function in any community the reason can usually be found in rules which confer special advantages on a few medical men and rigorously deny any privileges to those outside the 'charmed circle.'

"The ideal hospital system, and one that sooner or later must be adopted, is that which offers to every medical man the opportunity of placing his patients in any hospital he or they may elect, there to treat them with all the freedom that is his as a legally qualified practitioner of medicine. . . . Hos-

pitals will then become in reality what they were originally intended to be, institutions solely for the use and welfare of the public, and not institutions for the promotion of private gain, professional or otherwise, as under present conditions is too often the case."

MEDICAL POLITICS MUST BE ELIMINATED

As long as physicians can get on the hospital staff, merely because of politics or influence; because a friend or an uncle was on it for years; because of "standing in" with the "favored ones"; because of belonging to certain societies, or being graduated from certain schools, or for other such reasons or lack of reasons, just so long will the people continue suffering from these abuses, getting a minimum of service, little satisfaction and few results from hospital service. It seems that the people will never get much *real* benefit from hospitals until politics in the profession, medical school issues, religious and racial prejudices, and money considerations are eliminated. Why should not all hospitals be "graft-less," and people-benefiting institutions composed of free wards for all members of the community, irrespective of wealth—just as the public school is free for every child in the community? Furthermore, why should not every doctor in a community irrespective of "school" be on the community-hospital staff and be well compensated for service rendered the community? Instead of the city or state employing *a few* experts on health as at present why should it not employ *all* the health experts (drug and drugless) in the community, namely, all the doctors? Eventually, the people will demand such humanity-serving hospitals even if they themselves must own and control the

hospitals, the medical schools, and all that goes with them. In fact, nothing pertaining to health should be contaminated with private or corporate ownership. Health and life should be considered too sacred to be commercialized.

THE DOCTOR AND THE PUBLIC

Human health—one of the most important yet neglected of subjects, will some day become a leading issue before the people. The various sources of acquiring and distributing health knowledge and practice such as the medical schools, hospitals, state boards of health, medical examining boards, medical societies, and the like will be thoroughly studied and their theories and practices brought to the attention of the great common people. Not only the activities of the medical schools, examining boards and medical societies should be thoroughly understood, but the relationship of the doctor to the public.

The doctor's life work should be the health of the public and the public in turn should see to it that the doctor's welfare is looked after in every detail so that he can better continue serving the suffering public with his trained skill and knowledge. The questions arise: Does the doctor treat—in the genuine sense of the term—the public right, as he would like to? To put it in a different way: Does the public get the most benefit possible from the doctor to-day, considering our advanced knowledge of hygiene, chemistry, diagnosis and allied medical knowledge? Again: From the point of view of efficiency, does the public treat the doctor right? Is the doctor being encouraged by the public to do his best? Further, is it possible to conceive a plan or arrange-

ment whereby the public and doctor, both, may be most benefited? In other words: Is it possible to have an efficient system of health service, whereby the public will be given *the best* that scientific knowledge can offer; where *prevention* of disease will be the real aim of the doctor; where *saving* the patient from prolonged illness or sudden death will not mean a monetary loss to him; where the doctor is not a loser (financially) because he advises the people to live normally and thereby maintain health? These and similar questions are important, not only to the philosopher and academician, but more vital to the people than we sometimes realize, and are worthy of further analysis.

THE THREE MEDICAL SCHOOLS IN THE UNITED STATES

There are three distinct schools of medicine in the United States: the Allopath, Homeopath and Eclectic. To explain the difference between these three schools of medicine would require a volume. To be fair to all of them, we may briefly say: Each possesses some virtues and some faults; although they differ fundamentally in their conceptions and interpretations of the usage and effects of drugs on the human body.

THE ALLOPATH SCHOOL AND THE "A. M. A."

It so happens that the Allopath school—the oldest existing school, commonly known as the "regular," is now the dominant school. It is asserted by most physicians of the later schools and many of their own practitioners that this school of medicine, through its organization, called the "A. M. A."—

American Medical Association—has become a real trust or monopoly, holding the lives of the American people in the palms of its hands. Further, many Homeopaths and Eclectics claim that the "old school" has gotten control of so much power, wealth and influence, that it practically controls or influences most of the state boards of health, the examining boards, hospital staffs, clinics, medical societies, medical legislation, government health service, medical faculties, various publications, medical journals, manufacturing establishments of "biological" products, microscopic (and surgical) appliances, drugs and laboratory equipment.

MEDICINAL ADMINISTRATIONS, CHIEF CAUSE OF DIFFERENCE

The Homeopathic and Eclectic schools of medicine, as well as the Allopathic, have the same four-year course of study. They all teach practically the same subjects, such as Bacteriology, Pathology, Chemistry, Anatomy, Physiology, Obstetrics, and Gynecology. The main technical distinction is in their method of administrating medicines—their *materia medica* (the study of medical agencies employed in the treatment of disease).

It would seem that each could and should go about his business and let the other alone, but such is not the case. The Allopath claims that the Eclectic and Homeopath are in his way; that they are insurgents —medical rebels and the like. The Eclectics and Homeopaths claim that the Allopaths are "old-fashioned" and that they cling to blood-letting, and the excessive use and abuse of mercury, quinine and mor-

phine; that they worship the knife, and the like. So the lines of demarcation are very well defined. Thus, we have in the medical profession unnecessary chaos —or three separate, distinct and conflicting governing bodies, whose strife is far from ended, although nearing an end apparently.

MEDICAL EXAMINING BOARDS AND RECIPROCITIES

Every state in the union has a state medical examining board. The function of this board is to examine the young graduate (now a full-fledged M.D.), to ascertain whether or not he is qualified to practice medicine in the state. Remember, that this examination by the examining board must be gone through by every would-be practitioner, *after* he has received his diploma from a legally chartered college or school of medicine. This board also has for its function the granting of a form of reciprocity, the right to practice medicine to outsiders; that is, physicians from other states may present their diplomas, licenses and other certificates of qualification, and the board, according to its own laws and discretion, may grant them a license to practice medicine.

In some states the Allopath, Homeopath and Eclectic physicians have their own separate and distinct medical examining boards, where graduates of their respective schools of medicine come to be examined as to qualifications for receiving a license to practice medicine in that state. In other states, however, the Eclectic and Homeopath physicians are deprived of the right to have their own boards, but instead appear before a "composite" board; that is, so many

examiners of the Allopath, Eclectic and Homeopath school, respectively, or coöperatively do the examining of all who seek a license to practice medicine. "Fairness" could exist in such a "composite" board, if prejudice, malice, and professional envy and vanity did not exist. But, it has been said with truth that there is more "jealousy" among physicians than among any other group of professional people or tradesmen on the face of the earth. And, since that is the case, or even partially true, many a good physician no longer a very young man, after struggling for years to receive his medical diploma,—and probably, working hard many a sleepless night, in order to earn his room rent or a meal while studying at school, is deprived of a license to practice his chosen life work because he has not been graduated from "our" school, or because the applicant's school has not been considered favorably by this Board of Examiners, although the very next state thinks it O. K. and grants reciprocity. Other reasons or pretences, such as having written or lectured on health issues or protested before a legislative body against some medical abuse, may be utilized against an applicant, thus depriving him of a natural right to render human service, for which he is prepared by virtue of years of study, training and practice. Many physicians differ widely on certain prevailing theories in the profession and declare themselves in private, yet have not the courage of their convictions, for fear of their "bread and butter" or "prestige."

INTERNAL WARFARE

In some states where the Eclectic and Homeopathic

physicians are numerous, the prejudices or misunderstandings are not so great. In fact, sometimes the various physicians are the best of friends—as they really should be and some day will be. But the bitterness has been so great in the past that doctors of different schools would not consult with one another, —especially has that been true of the Allopathic or old school physicians. It is much better now, thank goodness, but the basis of common understanding is still far distant. Why should it be so? And above all, are the people benefited by such internal dissension or misunderstanding?

SCHOOL VERSUS EXAMINING BOARDS

Let us first see what a state medical examining board really means. With all respect to those who are on it, and to all parties concerned, let me briefly ask: Is not the very existence of an examining board *a reflection* upon the honesty, ability and capacity of a school or college? If a medical school or college has the legal right to grant the degree of M.D. (doctor of medicine) upon a person, after a four years' course of education (perchance a lot of *mis*education), after years of lectures, quizzes, laboratory experience, clinical experiment and textbook study, it would seem that that would be *sufficient* without making him undergo the torture of *re*-examination—at a time when the graduate is usually exhausted and in a state of anxiety. It should be understood that the faculty grades the students according to attendance, practical work, laboratory work and quizzes, frequent examinations and "finals." Is not that sufficient test and some-

times torture to ascertain the qualifications of the graduate? If a college or school cannot be trusted, —if, in other words, the ability and integrity of a medical faculty and board of trustees cannot be considered above reproach,—then why grant such a school or college a charter, which is the legal sanction by the state, of the existence and qualifications of such school? Is it not an *in*consistency to say, first, to a body of men: Yes, you gentlemen know your business, you have an ideal location, sufficient scientific equipment for a school and hospital, you may begin to conduct your school—here is your legal sanction—your State Charter; *and then*—four years later—practically say: It is true I gave you the right to teach these boys and to prepare them for the noblest of all callings, and it is equally true that you have examined them and found them qualified; but I do not trust your judgment; I do not believe you; I am going to have a separate and distinct board, called the board of examiners—a sort of board of censors,—to give the boys the "third degree" examination. Is there not something wrong somewhere? Oh! consistency, where is thine abode? Dost thou dwell on earth?

INEFFICIENCY AND HARDSHIPS OF EXAMINING BOARDS

Why should the state have so much unnecessary expense? Why should so many poor boys be bled another "25 spot"—probably their last, a fee to be examined *again*, after undergoing so many examinations already? Why should a *practicing* physician have to be *re*-examined if he decides to practice in

another state? Is it not the same protoplasm to be dealt with in all states? Must the prospective practitioner be made to feel that he is constantly before some prosecuting attorney, or confessing his sins before a priest or rabbi?

If an examination *must* be endured, why should there not be *one national examining board*, composed of an *equal number* of members of the *three schools of medicine?* Would that not be preferable to having fifty boards, holding meetings at fifty different times in fifty different cities wasting so much human energy, time and money? *One board*, conducted *without* prejudice or malice would be sufficient. Why should not this one national board have its headquarters, say, in Washington, D. C., or Chicago, yet permit the applicant to take his examination in the city where he graduates, at the post office building, as if it were a civil service examination? The examination would be *uniform* throughout the country and would give the successful applicant the privilege of *national* practice. In other words, he could then practice medicine in *any* state in the union without further hardship or ceremony. There should be no fees attached to such examination; if any, they should be fifty cents or a dollar to pay for pen, ink and stationery. Those who manage the examinations should be well compensated by the government. Would such plan not be more honorable, efficient and consistent?

TECHNICAL VERSUS PRACTICAL EXAMINATIONS

Another matter in connection with this state

board examination business is that the examinations should be *practical, intelligent,* and *human.* They should be divided into *written, oral* and *clinical parts,* mainly clinical and oral. The examination, if had at all, should prove a person's *qualifications to treat* human beings who need careful, human and intelligent treatment. In plainer language, I mean this: I would rather the examinee would prove his knowledge of diagnosis of illness and treatment of patients—be able to tell what he would do during a certain crisis, how he would manage the patient, for example, in a case presenting a group of symptoms called Lobar Pneumonia, or Bright's Disease; what he knows of Diet, Hygiene, etc., then be able to tell me,—on paper (perhaps whispered to him by another student)—the size of a microbe's abdomen; the length of its teeth or mustache; how many sisters the microbe had; the maiden name of the ever-growing list of germs and the like. I don't care whether we have one germ or a billion on every atomic speck on earth; it makes very little difference whether or not a fellow spells such words as *arterio-sclerosis, pronator radii teres, latissimus dorsi* correctly or not. I sometimes think the world would not cease to revolve if the medical student did not memorize the layers of superficial and deep muscles, which he usually *forgets later* anyhow. I would a thousand times rather he knew psychology, sociology, the healing power of love, friendship, and music, as well as practical anatomy and physiology, plus the principles of dietetics and hygiene, than to be on speaking terms with every microbe. I would also want to know what the examinee knows about *health*—not merely disease.

THE COLLEGE ITSELF

There is more rational medicine or therapeutics taught in many a *small* school or college than in the large, beautifully decorated school with massive marble walls, high ceilings, many microscopes, fancy test tubes, baseball teams and tennis courts. Some of the most prominent physicians in the United States came from small, almost unheard of colleges or universities, and as for *preparatory requirements*, such as a high school diploma, one or two years' academic work, so many units for college work, or a degree such as B.A., and the like, as a *prerequisite* to entering a medical college, let us be reminded that some of the most prominent and successful physicians of our time have been men who entered college when the *two-year* course was still in vogue. And those college years meant practically five months' work a year. Many a student worked part of the day or remained out of college many days at a time because he had to work to make ends meet while going to college, and yet, he became an intelligent, prominent and successful doctor. Not only that, but many of these same good, elderly men in the profession never went to a public school further than the fifth or sixth grades. There was a time when, if a young man studied under his father or uncle for a certain length of time (and, who will swear that he "put in full time") he was then permitted to take an examination, and if he passed, received his license to practice. Later on, some of these physicians became the *teachers*,—and the *professors* in colleges. They, themselves, *did the teaching* to others. Some wrote wonderful ar-

ticles in medical and popular journals and even wrote textbooks that we younger and modern physicians consult from time to time.

Again: the truth is that natural *adaptability* and *love* for the healing art and knowledge is more essential or important as a requisite for matriculation and preparation, in a medical school, for the life work of being a physician in the full sense of the term, than is mere academic knowledge, usually crammed into the brain, in order to "pass" examinations, and obtain the needed degree or diploma. In other words, so-called education (the kind you are supposed to receive at high schools and certain colleges) is not always a complete, true or absolute requisite for a fundamental knowledge of principles in the study of man, in *health* and *disease*. Further, it simply proves that the school does not necessarily make the man, but that the man makes the school.

REAL EDUCATION VERSUS ENGRAVED PIECES OF PAPER

Far be it from the author to decry or belittle the value of real education. In fact, the more *genuine* education and *real* knowledge the better, but we claim that merely having "passed" high school examinations or "going through a college" is not *in its last analysis* a real and sufficient requisite or "preliminary" for a medical education. We would rather admit a young man who possesses *good common sense* and only a *common school* education plus *adaptability* and *love* for the healing art, than a "silk hose, fancy, necktie dude," who just arrived "fresh" from college with his B. A. in hand (not in head) and who would never matriculate, were it not for his rich father's

forcing him to enter school or because "ma" thinks it is "so nice" to call her pet boy "doctor." We would prefer common sense and love of human service, plus *ordinary* knowledge, any time to artificial or routine training (sometimes stifling individuality) and "parrot-like education." The mere possession of a piece of engraved paper (diploma) is no true indication of what is stored up in a man's cranium.

We suggest that a *psychoanalyst* examine the prospective medical student to ascertain his *natural adaptability* or *fitness* for this particular kind of life work. No doubt the same measure should be applied to prospective students in *all* professions and in *every vocation* or line of human effort.

Let the would-be teacher, psychologist, judge, mayor, congressman and president undergo such scrutiny. Then will the people have experts who are truly proficient.

THE PROGRESSIVE AND TOLERANT SCHOOL

It would seem that medical schools should have "a chair" for each *system* of medication. The Allopathic, Eclectic and Homeopathic systems should be taught by the respective experts on the subjects. In this way the young physician would know *all* systems of medication and could adopt *any* system (or combination of systems) that appealed most rationally to him, or *select from* all systems that which appears the most wholesome, reliable, effective and natural.

Why not teach also in the schools all the *drugless* methods? Osteopathy, mechano-therapy, hydrotherapy, chiropractic, dietetics, mental-therapy and

all other systems of treatment should be taught under one roof. Why not? What harm could there be in it? Why not be tolerant? If there is good in any of these "new" methods of treatments, let men know them and adopt them, and if not, they can surely discard them or not even accept them. It may seem to those who have not investigated this phase of the subject that a study of all systems of healing —drug and drugless—might prolong the course of study to eight or ten years, instead of four or five as now, but such is not the case. If some of the subjects in the medical colleges were eliminated, such as Serum Therapy and Bacteriology (should be studied under the domain of *Biology* at High School, at the University, under private tutorship, or alone), and if all teachers were *full paid* teachers and were *real pedagogues*, even a two-year course (one year for theory and one year for practical work) would be sufficient for most persons of intelligence. I believe that this advanced view may disturb the "dignity" of some, who still worship the "hurrah spirit" of *my* alma mater, *my* class, *my* college and *my* profession, but we feel confident that a close study (without prejudice or monetary interest) will convince all truth-loving persons that this view and suggestion is correct and timely. The present four and five-year system—full of technicalities (largely of academic importance) is uncalled for and works a hardship on those who would love to study health and the healing art. In that way the young physician would come out more of a "finished product," and he would not be prejudiced. Thus the public, as well as the doctor himself, would be better off. The old, narrow

training and feeling that only "my ideas" are right, and Jones' ideas are not even worth listening to, is all wrong. Let us have democracy, even in the study of medicine. We are living in a more progressive age and it would be very timely and becoming. (If any one believes he has a still better plan or suggestion to offer, he is invited to communicate with the author, who will be very thankful to him.)

TEACHING AND THE TEACHER

Medical teachers should be real pedagogues. They should not only know their subjects, but be capable of conveying their knowledge in a comprehensive yet interesting and original style to the student. It is torture to have a good subject, such as Anatomy, or Physiology, abused and made repulsive just because the teacher knows as much about the science of teaching as a gonococci germ does about going to church on Sunday. Another point: Let no man become a member of the faculty merely because his uncle is the president, or because he is a politician in the community. If we cannot have real teachers, and real teaching on real subjects, then let us give up the schools. Better yet: let *the people* own and control the medical schools, instead of having them in private or corporate ownership for the sake of exploitation or personal aggrandizements.

We should have, and some day will have, a uniform entrance requirement and uniform graduation requirement in all medical schools of the country. In fact, all over the earth. A teacher should have the right to teach as he thinks best for his class in view of his subject. He should not be discharged by the

Board of Trustees for having discovered a fact, nor for giving the fact to the class. He should not have a muzzle on his voice or brain nor a string attached to him. A teacher should be a free person and truly held in high esteem. He should be well compensated for all his services. He should be so well paid that he can afford to live comfortably, to study and to give the best that is in him to the class. This should apply to teachers *in all* branches of learning. He should be a free and independent man, should have his position by virtue *of merit* and not by influence, politics or wealth. We should encourage rather than discourage teaching in *every* field of study. Further, we should teach *more facts* and *fewer theories* in all schools. We should adhere to the proven truths even if they are old truths. We should not teach that of which we know nothing. We should do less guessing and more thinking. Schools should not exist for the sake of books, instruments, and politics, but everything, so to speak, should exist for the sake of the school, which should be the medium through which knowledge of health is imparted for the sake of alleviating human suffering and *preventing* human ailment. Schools should be places where the laws of nature are taught and where we may learn that the violation of nature's laws means suffering and untimely death, whereas, complying with nature's laws means comfort, health, vitality, happiness and longevity.

THE YOUNG DOCTOR'S PREDICAMENT

Now as to the doctor himself, remember this: the doctor is only human. He has, as a rule, other

mouths to feed other than his own. The landlord, the milk man, and the grocery man do not exempt him from paying for his means of existence, and, therefore, he must charge a fee for his services. Every doctor to-day charges fees according to what he believes he is worth to the patient, based upon experience, length of practice, kind of service, time of day and the like. Many claim that some doctors, when they "start out" are not efficient (despite their "preliminaries," years of study, final examinations, and State Board reëxaminations) hence the poor patients suffer. There seems to be some truth in that. It is also true that many young physicians have no proper equipment, which certainly is necessary. Other such deficiencies can easily be pointed out, although not necessarily the fault of the young physician. He is a victim of circumstances.

The truth is that every physician ought to make of his work a continuous post graduate course; he ought to have a large library; plenty of good modern equipment; a good modern home to live in, wherein he may in leisure hours read and study, think of the cases that he has had, etc. There are times when he should be able to listen to a good lecture or go to an opera, as a means of recreation, human study and of broadening his intellectual horizon. But the young doctor, who is poor, starting out without equipment, with a poor library, composed mainly of a few old textbooks, an almanac and the Bible, has no such chance. Think of him waiting for his *first* patient. Can you imagine his feelings and some of his mutterings and grumblings? Think of him saying to himself or his wife: "I guess I'll have to

join a few lodges, even if they take my last few dollars; I must meet some people, I must get a few patients, if not, I do not know what I'll do." Can you expect to get the best service from such a doctor at that moment, if perchance you call him?

THE DOCTOR OF THE FUTURE

Now picture a different state of affairs. The moment the doctor is out of school suppose he were to receive an annual salary of, let us say, three thousand dollars, payable monthly; not only that, but a salary *increase* every year. Suppose it should increase according to the amount of competent service rendered. Furthermore, suppose he has access to a large municipal medical library, composed of about forty thousand volumes; a place where he can, at a moment's notice, get any medical reference book he may desire and also have access to any and all equipment free; all this could easily be a reality if we began to see truth as *it is* and not as some would have us believe.

Let us explain, briefly: Every young physician who comes out of a medical college should be a servant—an officer of the people. He should not practice "on his own hook" for two years. He should be assigned to duty under the supervision of another physician, who has been in active practice about eight or ten years. This young physician should have access not only to this large municipal medical library but should attend regular clinics and visit the hospitals at definite times. He should also practice with his elder physician for two years. After two years, he could be sent out on his own account, for then he

has had practical bedside training and other useful experiences (not usually heard in school or found in textbooks) under the tutelage of a physician of experience.

This young physician should, during these two years, receive a reasonable salary from the people (the government) so as to keep himself and family in good condition. This small salary of three thousand dollars, when he starts practicing on his own account, enables him to become fairly well known in the community,—and perhaps fairly well liked, for he then would have little or no chance to make many enemies as physicians usually do and always will, as long as they have to charge fees for services to individuals whom they treat. He does not have to charge (nor overcharge) fees, and he is able to pay all his bills promptly. He opens his office in a "Professional Building," where all the medical officers (physicians) have their quarters. This office is paid for by the government. He does not have to worry, waste time, argue with his wife, "fall out" with a friend, and make an enemy of a patient because he sends him a bill or insists that he eliminate bad habits and live natural.

Every year there would be promotions or honorary degrees conferred upon those who have shown merit or skill in service. This would be *an incentive*, as it should be to all normal people under normal circumstances. The physician would cheer his patients as a result. His very presence would be loved and appreciated. He in turn would love to do all in his power. The "fear of to-morrow" would be gone. He would not worry about the patient calling another

doctor or that he will not get paid when the bill is presented. There is no incentive to operate when it is unnecessary, nor is there any need of giving a colored water prescription for the "psychological" effect. The patient is kindly told the truth; he is taught *self-reliance,* good cheer, how to prevent illness by natural and simple methods of living; and all concerned are happy. In that way we would be treating our physicians properly and, in return, the public would get the maximum of attention, knowledge and health.

The physicians should be guardians of the people's health, and the people should make it possible for those who become health experts, not to be hindered from doing everything in their power for the benefit of the long exploited public. In other words: the physicians' income, promotions and honor should depend upon the *health of the people* instead of upon sickness, agony, poverty and sometimes untimely death, as is largely the case to-day.

ETHICS AND THE DOCTOR [1]

Ethics, or moral philosophy, is the study of rules and principles relating to human conduct or duty. There are, of course, various rules of practice for the various professions and vocations, such as political or social ethics, legal ethics, and medical ethics. The writer is chiefly concerned with the subject of medical ethics; that is to say, the relationship and duties of the physician to the patient and vice versa; between physicians regarding consultation; interference; compensation and duties of the profession to the public. What really concerns the public most is the clear understanding of the duties and obligations of the physician to the public and of the public to the doctor.

Let us say, in advance, that physicians, irrespective of school, be it Allopath, Eclectic, or Homeopath, are, as a whole, as ethical or as honorable as any group of men in any profession. It is claimed

[1] This article appeared in the *American Journal of Clinical Medicine* for May, 1920, with the following editorial comment: "Here is a discussion of medical ethics that offers much food for thought. Physicians are not perfect. No one claims that they are; and, if they were, they would be the most insufferable prigs to live with. However, certain rules of conduct, in dealings with their clients, among themselves and with the public at large, are properly formulated and should be lived up to by each individual physician. Our shortcomings we deplore. It is well that they are called to our attention from time to time."

that physicians are devoid of conscience, in numerous ways; such as making more visits to the patient's bedside than are necessary; that those skilled in surgery abuse that ability by advising operations, when conditions do not warrant them; that some guarantee to cure apparently incurable ailments when, in all truthfulness, the physician should not and cannot guarantee the cure of *any* ailment; that physicians neglect to diagnose the cause of the disorders due to psychic or economic influences, and administer medicines while ignoring the patient's habits, temperament and occupation. If they occur, I do not justify these demerits or neglects. I ask the impartial, unbiased reader to name a profession, vocation or trade that is more perfect; one that is more honest, more capable and more self-sacrificing than the medical profession, with all its faults.

It seems that every art, profession, trade, business or vocation to-day is far from ideal; tainted with crass commercialism, more or less, and the medical profession is no exception. Just as long as the bread and butter of the physician depends upon the sickness and misery of the people, instead of on their health and welfare, as it should—and, some day, will—just so long will this sad state of affairs continue to exist. It really becomes a social or economic problem. The *people themselves* will have to solve it, and will solve it when they understand it.

THE PHYSICIAN'S CALLING SHOULD BE ABOVE COMMERCIALISM

The noblest calling is that of the doctor. In alleviating sufferings, in assisting nature in the res-

toration of health, he is the greatest benefactor to mankind. Such a calling should be devoid of any incentive to exploitation. It should be different from an ordinary matter of merchandise. Lungs, heart, intestines, liver and spleen should not be sold for a price or be put on the "stock exchange." If one burns up my suit of clothes or sells me a cotton one for a woolen one, or if he overcharges me for that particular commodity, he has not injured my health, happiness, or destiny. But, once one meddles with my liver, removes unnecessarily any internal organ, or ruins my heart, digestive system or breathing apparatus, I have been done an irreparable, permanent injury—an injury that results in loss, not only to me, but to my dependents and to the state, whose greatest assets should be a healthy, happy, optimistic body of citizens.

JEALOUSY AN ANCIENT EVIL

From being in a position to command, direct, persuade or influence the *modus vivendi* of thousands, doctors unconsciously begin to feel their "superiority" to others. Eventually, they become jealous or envious of each other. Many times the patient is the victim as a result, just as a client would be the sufferer if the lawyers should settle his case while playing pinochle or poker.

On the subject of "Medical Ethics," the late Doctor A. Jacobi, in "Reference Handbook of The Medical Sciences," says:

"Galen, himself, complained of having suffered much, even physically, from the jealousy of doctors. The relations between the members of the medical profession remained bad

through centuries, though professional leaders and governments tried to make the doctors behave like gentlemen. Through centuries, statutes of associations, faculties—for instance, those of the Chirurgeons of Paris, A. D. 1370, the barbers of Alsace, the medical faculties of Leipsic (1309), Cologne (1392), Vienna (1494)—refer to all sorts of rebukes, reprimands, fines and even incarcerations on account of unethical behavior. Johannes Peter Frank was so disgusted with the behavior of doctors, when they met in consultation, as to advise the calling in of the police on all such occasions.

OLD TIME REGULATIONS

"The history of what may be styled the business relations of practitioners is quite extensive. No 'barber,' chirurgeon, or practitioner was entitled to take a case which was under the treatment of another, unless the predecessor was notified, paid and decently discharged. The large number of regulations, orders, and, sometimes, heavy fines emanating from governments and faculties prove the frequency of transgressions.

"Consultations were always frequent—either desired or feared. Hippocrates says that quacks refuse to call other practitioners but that a physician, in a case beset with difficulties and dangers, will demand the presence of a colleague without any injury to his own reputation. Still, the anxiety of the patient and his friends overdid the practice of calling consultations. Pliny reports that the monument of the Emperor Hadrian was inscribed *Turba medicorum perdidit Caesarem.* (The large number of doctors killed the Emperor.) Henry IV, of France, calling (1594) upon one of his state officers who suffered from retention of urine, found him surrounded by sixteen doctors."

MEDICAL SOCIETIES

Even in the twentieth century the relationship of medical men is far from ideal. A great deal can be said regarding the medical societies themselves. Not everybody can join. They are like any fraternal lodge. One may be a highly respectable physician, gentleman and citizen; he may enjoy a good

practice and the good will of thousands of people; he may be one who is honest and clean morally, physically and otherwise, yet he may not always be able to "get in." Why? Well, it may be due to the fact that he has told the truth too openly. It may be that he belongs to a "different school." It may be because he is feared, because he knows more. It may be because he has had a *personal* misunderstanding with an influential member. Many a good man is kept out while many a man who is far from satisfactory is a member, perhaps one of the leading officers. But, of course, that is nothing new to those who belong to fraternities, where a prospective member may be "black-balled" almost any time, either because a prominent member of the clique owes the prospective member a "ten-spot" or for some insignificant personal reason, or despite the lack of good reason. Such is the justice of medical and other "fraternal" societies to-day.

PRACTICAL QUERIES

Is it *ethical* for the doctor to prescribe proprietary or patent medicines and grumble at the invasion of patent medicines?

Is it *ethical* for the doctor to assume that he has a mortgage on a patient so that he dare not or cannot make a change in his medical attendant if he so desires?

Is it *ethical* to say: "What! Dr. So and So was here yesterday? What does he know anyhow? I get his patients almost every day."

Is it *ethical* to look at the bottle of medicine prescribed by the first doctor, or at the capsules left,

and then, in an undertone: "I wouldn't give that to a dog." Would it not be better for all concerned if the doctor said: "Well, Mrs. Jones, it is a little hard to say what those capsules, or the bottle, contain, but I'm sure Dr. So and So has done the right thing. He is a good doctor, but, now that I'm here, I'll ask you to follow my directions." Isn't it best to be tolerant? Why not? The world is large enough for all; and life is too short to waste it on abuse.

THE COMMISSION PRACTICE

The relation of the physician to the pharmacist is sometimes looked upon with suspicion, even to-day. The "commission or split-fee" tariff has become quite an alluring one. There are some medical men who demand commissions. Commissions are asked from, and paid by, instrument manufacturers, truss and bandage makers, druggists, nurses and others. Is this ethical? Who pays for the commissions? The people, especially the poor people. This is not an unusual but a common practice. In New York, medical associations and public hospitals have been obliged to brand the practice as a gross outrage and they have even threatened the transgressors with expulsion. That alone proves its frequency. In spite of this, and more that can be said, the teaching of *Ethics* in the medical colleges is almost totally neglected.

AS TO ADVERTISING

Personally, I never have adopted newspaper or similar methods of advertising. However, I am toler-

ant and democratic enough to extend to any member of the medical profession the privilege of advertising if he so desires, *providing* that there are no exaggerated claims, lies, or fraud in the contents of the advertisements. If he merely announces his specialty, or has his professional card inserted in the paper, it means little; he merely draws attention to himself. Let him do it if he desires and do not hold him in contempt for that. The only reliable advertisement after all is satisfaction based upon conscientious service.

A great deal can be said regarding the "*ethics*" of announcing the doctor's name at the moving picture show or theater as "needed" at the phone, or the announcement in the press of the leading operations performed by prominent surgeons. Much can be said relative to the prejudice of physicians of one school to those of others; of the inefficiency of medical schools, and State Board examinations in determining medical competency; of clinics and so-called "free" wards in hospitals. It behooves every truth-seeker to give this subject further study.

THE DOCTOR'S POSITION

Let us for a moment consider matters from the doctor's standpoint. Imagine yourself in his position. You have just received your "sheepskin," after enduring a battle with your mind and conscience for a number of years—from four to seven. You are now a full-fledged M.D. and as proud as a peacock. You feel as if you know *everything*, from the size of a germ's molar to that of the diameter of a camel's

hump. Still, one thing is beginning to bother you and your folks, that is, how will you make a living? Where will you hang your shingle?

Unless your father is a physician, or your uncle is still willing to take care of you for another few years—although tired of such a job already—you will have to start out on your own initiative. If you locate in a wealthy neighborhood and happen to secure a few patients there (which would be by accident) you will have to cater to their whims and fancies; otherwise, you will not be looked upon with much favor. You must not insult their palates by telling them to eliminate excessive sweets; to sleep after midnight; to take more exercise and the like. In other words, if you want to build up a practice among them you may have to crush your conscience and flatter your "silk-hose-brigade" patients. You may, after a while, begin to think: "I should like to keep my principles, but it seems that my principles won't keep me."

If, on the other hand, you "commence" among the working class you will meet the cry of woe and the withered hand of poverty. You will see the babe in its mother's arms, not dimpled but pale and emaciated. You will observe the dark entrances to their "homes"; the poor illumination at night; lack of ventilation, foul air, insanitary toilets, shabby clothes and filthy rooms. Your heart will break and a tear will fall when you take a reasonable fee. And yet, if you don't, how will you pay last month's rent? How will you purchase that new brass cuspidor or desk chair you looked at a few days ago? And, don't forget, you need a new suit. To make a

long story short, you will soon begin to feel that you are between the devil and the deep blue sea. Then you will muster up a little more courage, charge regular fees, come at regular times and become a "real" doctor, like the rest of them.

THE PUBLIC RESPONSIBILITY

The truth is that the public does not treat the doctors right. The truth is that the public *itself* is responsible for much *un*ethical procedure there is in the medical profession. The truth is, further, that the public never has even begun to think about the vital problem of medical ethics or any other ethics. When the public recovers from its social inertia it will be established that the doctors shall not suffer because the health of the community is good. People will stop being so blind and thoughtless as to give the doctor a pecuniary interest in disease while giving him little or no interest in the business of keeping them well and in good health.

Not until doctors are being paid for keeping us *from* being sick and not until their existence, comfort, honorary degrees and promotion depend upon our being healthy instead of sick, shall we have less sickness, more happiness, and genuine ethics.

HAIR AND ITS CARE

Hair grows upon the human body as the plants grow upon the surface of the earth. In order to have luxuriant and beautiful hair one must, as in all things, pay the price in some form. Just as the price of knowledge is study, so the price of a dandruffless head of hair is care, consuming, of course, some valuable time and energy.

BALDNESS

Many thousands of dollars are spent annually in "nursing and coaxing" the few hairs that remain to "stand by us" and in trying to resurrect a few apparently dead hairs by artificial compounds, which, as a rule, do very little good, except to the manufacturers and vendors. Thus the grim and relentless battle against baldness is being waged.

CAUSES

Among the causes of baldness may be mentioned (1) dandruff, (2) excessive use of alkali soaps and water, (3) excessive action of the brain, (4) tight hats, (5) certain fevers and diseases, (6) general low vitality, and (7) carelessness on the part of barbers.

DANDRUFF

Dandruff, the fine, light powder which lies upon the scalp, obstructs its pores and prevents the hair

from thriving. It is usually due to the accumulation of dirt or bodily weakness. In order to rid one's self of it the hair must be intelligently washed and cared for. Dandruff should be washed out and brushed out —never combed out. In fact, the fine-tooth comb as used by many is a bad practice, as it irritates the scalp. The fine-tooth comb is only of service when children are infested with head parasites.

WASHING THE HAIR

As to washing the hair, many methods are suggested and various formulas are recommended that can be employed with safety and which should be changed from time to time, according to circumstances and results desired. One reliable process is to dissolve about half a cake of some good soap in a bowl or basin of tepid water, and then continuously part the hair and rub vigorously on the parted area with a small brush dipped in the soapy water. Keep on making new partings and rubbing them in the same manner. After this "washing, parting and rubbing exercise" has been gone through, empty the bowl or basin, fill it again with water and put in the other half of the cake of soap until dissolved. Then repeat washing of hair, rubbing with the fingers instead of the brush. Next rinse the hair thoroughly until the water, rinsed from the hair, appears perfectly clean. Remember: "Whatever is worth doing is worth doing well."

The drying processes of the hair are of no less importance than the washing. The drying by funnel heat as in crimping makes the hair brittle and cracks it. And if it is dried by means of cold air, neuralgia

or "a cold" may result. The Turkish towel rub, to begin with, is as good as any procedure, for it removes the dripping moisture from the washed hair. Then the tips of the fingers should become the real drying agencies, exercising every bit of the scalp until it is dry. This finger manipulation electrifies and produces a good flow of blood to the hair roots.

As to the brushing, it should be done thoroughly. What constitutes correct brushing is also a matter of importance. There seems to be a tendency on the part of many women to brush excessively, which only drags upon the hair and loosens its roots. About thirty strokes of the brush are usually considered sufficient. A good rule to remember is "less brushing and more massaging." This is especially so with those whose hair is thinning.

After the hair has been sufficiently brushed it should be given a dry massage. The pressure of the fingers on the sebaceous glands causes them to yield and release an oil which softens and nourishes hair growth. And right here a great secret may be revealed, namely, that the most important cause of baldness is an *anatomical* one—lack of fat on the top of the head. This *cushion of fat* between the scalp and the bony tables of the skull is the nutritive or fertile soil from which the hair roots and follicles receive their life-producing activity and appearance. The amount of hair, its permanency and luster all depend upon the thickness of this fatty layer—this movable scalp. And last but not least, the hair needs sunshine and air and rest. It should always remain loose and hanging except when you leave the home, when, of course, most of us are victims of false

modesty and slaves to fashion, otherwise known as convention.

DISEASE AFFECTS THE HAIR

Certain fevers, such as typhoid, typhus, and influenza (the grippe), bring heavy drains on the reserve forces or areas of stored energy during a decline and in convalescing states. At this time this protective fat pad on top of the head is imposed upon and the hair bulbs are choked to death. Syphilis and other impure blood derangements cause falling of the hair in certain areas of the head or all over the hair-growing regions.

OTHER DANGERS

Alkali soaps and water from the hydrant which contains various mineral matters have a tendency to irritate the scalp, make the hair loose and brittle at the roots, so that eventually it falls out. The problem of soaps is a greater one than one would ordinarily believe. It sometimes aggravates the already irritated condition. Soaps made of spermaceti are good. Tincture of green soap is another reliable preparation, and so is Castile soap. Castile soap and water, or borax and water containing a little distilled extract of witch hazel make excellent hair washes. As with other preparations, the hair should be thoroughly rinsed with clear water after washing.

TIGHT HATS

Tight hats, or air-tight hats as they are sometimes termed, are classed as one of the causes of baldness.

The author holds with those who believe it to be a contributing factor, for after all it does not allow free passage of air through the hair on top of the head. It also prevents the sun's rays from exercising their soothing influence on the scalp. All life needs heat, air and moisture. In general, wear a hat as little as possible. Further, the fewer pins, combs, pencils, "rats" and other artificial electro-negative and electro-positive supports (crutches and ornaments) there are in the hair, the better for the hair.

CARELESSNESS OF BARBERS

On the carelessness of barbers a chapter can be written. Some of them are careless not only with towels, their hands, finger-nails and the like, but in the care of their combs and brushes, which is conducive to various eruptions, dandruff and baldness. Most of their "hair tonics" are harmful and increase the loss of hair. We need the barber, and we should pay him well for services, but his services should be under absolutely sanitary conditions. The patron of the barber shop should see to it that the brushes, combs, clippers and other such "weapons" employed there be clean, dried and heated, and kept that way. Better still, have a certain barber attend you every time and let him keep for your exclusive use your own paid-for brush, comb, clipper, razor and cup. In the "long run" it will cost less than paying a doctor's bill, and why look for bargains when it comes to health? We can never pay too much for good service. Further, at home at no time should any member of a family use the comb or brush

of others, any more than he would borrow a toothbrush or a toothpick.

MENTAL EXERTION

Excessive action of the brain, such as intense study, great mental anxiety, and the like, which produce abnormal heat of the brain surfaces seems to be classified as a cause of falling hair; and yet, judging from some of those we know, it would seem that just the opposite were true—that it is due to a lack of sufficient flow of blood in the brain as a result of little or no study and not too much thinking; in other words, *mental inertia.*

General bodily weakness is after all the primary factor in paving the way for baldness. In fact, low vitality makes one susceptible to almost all abnormal conditions or diseases. As a preventive one should so live that his vitality will never register "below par."

MUSIC—AN AID TO HEALTH

Music is the language of the soul, and what a wonderful language it is! Music vibrates through man's being and rouses him to a higher and nobler life. It has been said that the opera is one of man's best inspirations. It acts as an invigorating psychic tonic. It revitalizes and stimulates the organs of the body so that they function more normally. It soothes the sick and stimulates the well; and besides, it instructs and entertains.

ABILITY TO APPRECIATE MUSIC

Sometimes it seems as though one who does not feel better after hearing some of the inspiring and magnetic songs sung in such operas as "Aida," "La Bohême," "Carmen," "Pagliacci," "Rigoletto," "Samson and Delilah" and others is undergoing either brain shrinkage or ossification of the heart. Further, any one who does not eat better, sleep better and work better after hearing Mme. Amelita Galli-Curci sing such numbers as "La Capinera," "Romeo et Juliet," "Solvejg's Song" and "Lucia-Ill Dolce Suono" would certainly need treatment; such a person must have some anatomical or physiological disturbances or defects. And yet, setting aside prejudice and fanaticism, we cannot blame those who never had the proper opportunity to appreciate opera or other sorts of music. Can we be angry with

those who have eyes that see not, and ears that hear not? Their eyes are full of sand and tears, their ears are full of wax. How can they be blamed? It is our duty all the more to sympathize with and help those whose condition is worse than ours. We are all products of environment, hence we should not be quick to condemn or belittle those whose lives are too weary and dreary to develop the best that is in them. (Read "Social Conscience," by Adam Abet, Coöperative Publishing Company, Inc.)

THE "MOVIES" AND COMMON AIRS

It seems that the rank and file of the people will never be much better off until they think enough of themselves to begin appreciating music, art and general culture. Let us hope that the time will yet come when most people will utilize their limited time in reading genuine history, philosophy, literature and scientific works; a time when they will love good music more and baseball less; when they will love music and all art and nature; a time, in other words, when they will have an opportunity to understand and admire the opera instead of the "rattling, humming and buzzing" of the saloon organ (now stylish at some restaurants and confectionery stores) which responds to the "nickel in the slot." This can be summed up thus: May the time come when they will not blister their hands nor raise bunions on their feet by applauding a "rag song" or "jig dance" in the name of music, and at the same time remark, "Opera is Greek to me." Unfortunately the average man's opera or musical storehouse is the "movie." Although the "movie" has its field of use-

fulness and should be patronized, for many a good lesson is taught there, nevertheless it differs from and will never take the place of the real opera, in which the higher attributes of mankind are so nobly expressed.

PHYSIOLOGICAL EFFECTS OF MUSIC

All music lovers know that music, when properly applied, is an aid to health. It will promote digestive functions, strengthen the breathing apparatus (diaphragm, lungs and bronchial tubes), relieve fatigue and give grace to the movements of the body. Folks with an irritating temper can be calmed, the melancholic roused and the insane soothed by the healing power of music. It will help bring to the surface the poet, writer, sculptor and musician in a person. The melody of the music will make you either glad or sad. It will contract or relax your muscular, vascular and nervous system, thereby toning the liver, stomach, intestines and other internal organs. It can make you laugh, cry, shriek, sway or march; all depending on how attuned your nature is and what receptive mood you may happen to be in at the time when listening to the music. It is understood, of course, that one type or class of music may be more appealing to one patient than another, just as diet and labor cannot be alike for persons of different temperament and different physical development. The physical, mental and psychic states of a person, plus general environment, must determine largely the kind of music and length of time for its administration.

A FEW ILLUSTRATIONS

We will assume a few definite cases. Let us say you need a stimulant, you need to be aroused, your brain cells do not yield clear thought, and your thoughts are hazy; then you should immediately hear such musical numbers as Tschaikowsky's "The Tempest Overture," or Mendelssohn's "Fingals Cave." It will surpass any "I. Q. and S." tonic on the shelves of the apothecary shop. Try it. Or it may happen that you feel "all in," as the saying goes; you have worked hard and are tired from the day's turmoil—the bivouac of life—yet you are restless and suffer from insomnia. In such cases one of the best "prescriptions" may be the "Volga Boat Song," "My Heart at Thy Sweet Voice," "M'Appari Tutt Amor," and other such restful, soothing numbers. These would "rock you to sleep" with more safety than would narcotic drugs, which, if taken continuously, usually result in an abnormal craving which eventually wreck nerves, destroy ambition and lower vitality. How much more wholesome and health-producing substitute would be the scientific administration of musical prescriptions?

SINGING

The act of singing is a great aid to health. Good singing implies correct standing and breathing. It helps develop the organs of the chest and makes one feel better generally. We should have more singing exercises in the schools. Industrial establishments should be conducted so scientifically and humanely

that once or twice daily a few minutes (at least) should be devoted to popular singing, accompanied by an orchestra. What's more, the industrial conditions ought to be so good that those who work in them will *desire* singing and enjoy it. Why should not all who work be happy? Would it be impractical to love music and be more content?

MUSIC IN SANATORIUMS AND HOSPITALS

Sanatoriums, hospitals, homes for the incurable and other health institutes should have musical programs as part of their schedule, as it would not only cheer and give hope, but it would also aid materially an early recovery. The violin and piano should be as much in evidence at a hospital as is now the instrument cabinet and operating table. In fact, the greater the utilization of one, the less need there is for the other. And why not have music in almshouses and jails of the country? It would help those social victims to gain strength and self-control, which would enable them to persistently stand for right things after they leave the institution.

MUSIC WHILE TRAVELING

Why not have music for travelers on the trains and ferry boats, as well as on steamships? Then traveling would be less monotonous and the passengers would enjoy and digest their food better. A healthy, contented and cheerful citizen is an asset to the public, whereas a sickly, discontented and gloomy citizen is a liability. If that be the case, why should we not do everything in our power to promote the good of all? And if music in public (and private)

places will help even a little in that direction let us have it. Is it asking too much when we know it will give cheer and comfort and aid in health?

PLAYER PIANO TO BE BUILT IN EVERY MODERN HOUSE

It may not be out of place to suggest that a player piano be built in every modern home, just as the stove or furnace is. Let it be as much a part of the flat as are the shelves, the ceiling or the floor. Why should not modern homes be built for comfort instead of rent? A player piano built in every home, or the permanent addition of a self-playing automatic musical instrument of any kind, would be a great preventive of dyspepsia, with which we Americans are so afflicted.

"MEDICINE" THROUGH EARS AND NERVES

A time may yet come when doctors will prescribe a certain number of minutes or hours of music; for instance, certain appropriate numbers every three or four hours. It may become necessary to prescribe one kind of numbers before or after meals, and an entirely different selection of numbers upon retiring or at the appearance of certain symptoms, such as pain, irritability or insomnia. It is possible that the doctor—a musical expert—may prescribe the hearing of vocal solos under one circumstance and instrumental ones under another. And what is more, these "prescriptions" could easily be "filled" on the player piano or phonograph. In fact, they could be filled by members of the family or by the trained nurse—a musician. The patient will not be able to complain of "how bitter" this medicine tastes. It will not be

taken by teaspoons, but will be absorbed through the ears and nerves. Would it not be wonderful? Yes, musical prescriptions will some day be a reality; the sooner the better—for the people.

EMERGENCIES AND THE EMERGENCY CHEST

Emergencies and accidents occur more frequently than we realize. Fatal results often follow accidents because professional aid was not quickly obtainable. Although it is advisable to call an expert in most emergencies, yet it becomes a very important matter to have an "Emergency Knowledge" and be prepared for emergencies by having in every home an "Emergency Chest," where various essential items are kept on hand. It is strange how people will be willing to spend ten dollars or a hundred dollars during an emergency, how they will want to call five doctors at one time, yet will not have forethought enough to spend a dollar to have a few rolls of adhesive plaster, a pound of cotton, a jar of vaseline or an atomizer on hand. No wonder we physicians and also the undertakers are kept so busy.

WOUNDS

Wounds may be classified as *incised*, *punctured*, *contused*, *lacerated* and *poisoned*. *Incised* wounds are those produced with a cutting instrument such as a knife. *Punctured* wounds are those produced by a pointed instrument. *Contused* wounds are those produced by bruises. *Lacerated* wounds are those in which the flesh is torn. *Poisoned* wounds are those produced by some poisonous reptile, in-

sect, rabid animal, or by some poisonous instrument.

In all cases of wounds the immediate danger is usually the *shock* produced on the nervous system, and in the possibility of hemorrhage.

To overcome shock the clothing should be loosened to allow free circulation, and the patient kept in a comfortable position. Provide plenty of fresh air. External heat by means of massage or electricity is sometimes of great benefit.

Hemorrhage or *bleeding* is usually controlled by *compresses, styptics, tourniquet,* and *flexion* of the joint. One of the best styptics is *collodion,* which can be freely applied to a bleeding wound. Extreme cold or heat serves well. Powdered *alum* is a wonderful yet simple and handy check for bleeding externally; so is a strong solution of tea. For internal bleeding, suck ice; keep perfectly quiet.

In all *poisoned* wounds the aim should be to immediately clean the tissues involved and prevent further spread of the poison. Apply a bandage above the wound, which must then be thoroughly cleaned or cauterized. For the stings of insects (see under heading "Poisons and Their Immediate Antidotes") apply ammonia water, spirits of turpentine or salt water. For *spider bites,* catnip or plaintain leaf is considered a home remedy of marked value. For *mosquito bites* wash the affected areas with a solution of lemon juice. The rubbing of soap on the hands before retiring is a good prevention. *Nettle stings* are soothed by the application of rosemary, balm or mint, sage leaves or any other aromatic herb. *Flea bites* will be soothed by the application of moistened soda. *Bee, wasp, hornet* or other

such stings can be relieved by bathing and binding on the parts a strong solution of equal parts of salt and baking powder or saleratus.

SPRAINS AND BRUISES

Sprains are sudden and forcible stretchings of ligaments or tendons. As a rule, pain and swelling develop. *Bruises* are caused by falls or "blows" from blunt instruments which do not break the skin. The tissues underneath the skin are so disturbed that blood is poured out into them producing discoloration. In bruises as well as in sprains the main thing to do is give rest and relief to the painful parts. Fomentations and poultices are useful. A strong tincture of cayenne pepper, with an equal part of glycerine, applied, removes discoloration.

BURNS AND SCALDS

The danger that may arise from burns and scalds depends not only upon the extent of surface but the depth of the burn as well. Soothing, air-tight applications are the most desirable. Among the many methods employed for relieving and healing burns and scalds are: 1. Lime water; 2. Equal parts of lime water and linseed oil; 3. Two ounces of alum in one pint of hot water dissolved, saturating cotton cloths with this solution; 4. Strong solution of baking soda applied; 5. Collodion painted over slight burns; 6. Common indigo bluing applied with cloth; 7. Kerosene oil is now being used with wonderful results; 8. A few drops of carbolic acid (diluted) on a cloth; 9. Poultices of slippery elm or grated potato.

FAINTING

In a case of fainting always place the patient in a horizontal position, with his head as low, or even lower, than the body. Remove everything tight from around the throat and chest. Sprinkle cold water over the face, neck and chest; wipe it off and rub limbs with your hands and slap the skin (some authorities differ as to this method). Fresh air, ammonia or camphor, if at hand, should be applied to the nostrils. Keep the feet in warm water. This has helped in stubborn cases. In lifting or moving a person when in a fainting condition always keep the head lower than the body.

FOREIGN BODIES IN THE EYES

As a rule it is very easy to remove foreign bodies from the eye. If the foreign matter is beneath the *lower* lid, the lid should be drawn down, the patient should look upward, so as to enable the one removing the substance to do so easily by means of a match, toothpick or pin, covered with a clean, soft cambric or silk handkerchief. If the substance is beneath the *upper* lid it can be removed by first taking hold of the eyelash and gently raising the edge of the lid wide, in the meantime pressing and moving the covered match on the inner surface of the lid removing the substance. Sometimes the corner of a dry, clean handkerchief will answer the purpose. Lifting the upper lid and pulling it over the lower one is a simple and wholesome method. The eye should never be rubbed. A few drops of warm water may be placed in the eye by means of an eye-dropper.

FOREIGN BODIES IN THE NOSE

Children are very apt to put beads, coffee grains, peas, buttons and small stones in the nostrils. If these are allowed to remain inflammation, swelling and suffering may result. Keeping the head lowered is advisable. The patient should be warned not to sniff inward. Sometimes a pinch of snuff or ground pepper to induce sneezing is good, keeping the mouth and the opposite nostril closed. Slow syringing with salt water may dislodge the substance.

FOREIGN BODIES IN THE EAR

It is safer, as a rule, to use a small syringe and warm water than forceps. If an insect makes its way into the ear, deluge it with sweet oil or drop warm water into the ear by means of a sponge if no syringe is at hand.

FOREIGN BODIES IN THE THROAT

The patient should remain seated while the operator pushes his finger down the throat as far as possible in an endeavor to reach and dislodge the substance. It may become necessary to turn the patient upside down in order to dislodge the foreign body. In the case of a fish bone stuck in the throat, it may at times be dislodged by eating something.

A BLACK EYE

Apply a cloth, rung out of very hot water, over the region of darkened area for fifteen or twenty minutes in succession. Almost any bruise will yield

to such treatment. Tincture of arnica is sometimes used to remove soreness.

BLEEDING OF THE NOSE

The application of ice or cold water to the neck, forehead or back will sometimes give relief. Ice or cold water in the bleeding nostrils will check bleeding; hot water will act the same way. In obstinate cases, blow a little gum-arabic powder or powdered alum up the nostrils through a quill. The nose may be plugged with absorbent cotton or gauze. It may be plugged with a piece of gauze saturated with tincture of hamamelis. Pinching the nostrils may be of service. The sucking up of a little tincture of iron by means of a small syringe may check the bleeding. A solution of tannic acid is very efficacious many times.

INFANTILE CONVULSIONS

The immediate treatment of infantile convulsions depends largely upon the cause. In an emergency the first thing to do is to give the infant an enema composed of a warm soapy mixture. For quicker results insert a glycerine suppository in the rectum. A piece of soap carved for this purpose will do as well. After the bowel is emptied, then apply warm applications over region of abdomen, or better still, give a warm bath—sometimes a mustard bath. If the child seems exhausted, gently massage its spine with cold water. If the child suffers as a result of having irritable food in its stomach, it is best to produce vomiting by means of warm salt water. If the convulsions are due to inability to void urine, hot

flaxseed poultices over region of the bladder may be imposed.

THE EMERGENCY CHEST

Every home should have an "Emergency Chest." The up-to-date homes of the future will have them built in, scientifically, as are to-day the furnace and the electric fixtures. Among the many items that every "emergency chest" should contain may be mentioned the following: Cotton, adhesive plaster, gauze, gauze bandage, Turkish towels, table salt, mustard, cinnamon, tincture of iodine, powdered alum, boric acid, baking soda, collodion, glycerine, carbolic acid, tincture of arnica, flaxseed meal, extract of witch hazel, grain alcohol, lime water, linseed oil, olive oil, kerosene oil, glycerine suppositories (adult and infant), camphor, ammonia, tourniquet, ice cap, rubber water bag, atomizer, zinc oxide ointment, vaseline, eye-dropper, syringes, forceps, scissors, spoons and tumblers.

PRINCIPAL POISONS AND THEIR IMMEDIATE ANTIDOTES

There are thousands of substances other than those usually classified as poisons that are capable of causing death when taken into the human system. Many of the adulterated foods and incompatible mixtures of food we eat daily create large quantities of toxins or poisonous extracts. These eventually manifest themselves in sudden or early death through the medium of fever diseases, as influenza and pneumonia. The continual inhalation of irritable fumes in various industrial plants has caused gradual poisoning of the vital organs of the body, paving the way for disability and untimely deaths. The same holds true of various occupations, such as those of painters, typesetters, granite workers, and the like.

WHAT TO DO FIRST

The first thing to do in the ordinary case of poisoning is to produce vomiting. The next thing is to call for a doctor. The third thing is to give some antidote or neutralizing agency to destroy the action of the poison. The vomiting is generally produced by drinking a large quantity of warm water, then tickling the throat with a feather or the finger. If vomiting does not take place within a very reasonable length of time, a tablespoonful of powdered mustard in a glass of warm water should be given. A tea-

spoonful of zinc sulphate in a half glass of warm water or a teaspoonful of ipecac in the same quantity of water may be tried. If a stomach pump is at hand, and you find a person who can use it effectively, employ it.

As a rule, when such symptoms as pain, purging and vomiting occur, fresh milk, the white of egg, magnesia, chalk, sweet oil or other oils are given. When such symptoms as delirium and sleepiness are caused, vomiting agencies (mustard, salt, zinc sulphate, ipecac and the like) and stimulants such as strong coffee and camphor should be employed and the patient should be kept awake. If the poison is unknown, give such preparations as magnesia, chalk or charcoal, equal parts, mixed in warm water and followed by sweet oil.

POISONS AND THEIR IMMEDIATE ANTIDOTES

Absinthe—Evacuate the stomach (vomiting or stomach pump); give flaxseed tea freely, stimulate.

Alcohol—Evacuate stomach; alternate cold and hot douches; apply external heat (massage or electricity).

Ammonia—Diluted vinegar or acetic acid; lemon juice; linseed or almond oils.

Arsenic and Its Compounds, such as *Paris Green, Scheeles Green, Arsenical Soaps* and *Pastes, Fly Powder, Kings Yellow, Red Sulphuret* of *Arsenic, Yellow Sulphuret* of *Arsenic* and *White Arsenic*, give plenty of milk freely, or oils, fats, lard and melted butter freely; then produce vomiting with mustard, sulphate of copper, ipecac or some other emetic. Mucilaginous drinks should then be given. The

important chemical antidote for all arsenical compounds is *hydrated sesquioxid* of *iron.*

Bed Bug Poison—Plenty of milk or white of eggs.

Belladonna—Evacuate stomach; apply external heat, alternate hot and cold douches; induce artificial respiration. The *chemical antidote* is *tannic acid;* the *physiological antidote* is *pilocarpin.*

Cantharides (Spanish Flies)—Evacuate stomach; give albuminous or mucilaginous drinks; avoid oily substances; leeches; linseed tea in large quantities.

Carbolic Acid—Milk, flour and water; white of eggs; glycerine; oil, magnesia and flaxseed tea. Hot applications to the skin; Epsom and Glauber's salts.

Chloroform—Produce vomiting; lower patient's head; alternate hot and cold douches; induce artificial respiration.

Gas—Plenty of air; artificial respiration; rectal douches, and apply heat to extremities.

Digitalis—Evacuate stomach; lay person prone; apply external heat, especially about abdomen. Aconite is the best *physiological* antidote, but must be used with extreme caution.

Fish—Vomiting, followed by salt purgatives (Epsom and Glauber's salts) and alkaline drinks; enema.

Honey Poisons—Black coffee, smell of camphor, and rub with it.

Ice Cream and Milk—Cleanse stomach and bowels; apply heat and stimulate.

Iodine—Starch, wheat flour, or arrowroot boiled in water, freely; vomiting agencies and external heat.

Ivy Poison (Sumach)—Apply to affected parts a paste of equal parts of starch and glycerine.

Laudanum, Opium, but not Morphine—Evacuate contents of the stomach by emetics such as mustard, ipecac or sulphate of copper; stomach pump; strong coffee; external heat. Keep patient awake by shouting in ear, by walking him, by flagellating with wet towels, or by alternating hot and cold douches. Electricity; respiratory stimulants; alcohol; *tannic acid* freely.

Lead and its Compounds (Sugar of Lead, White Lead, Red Lead, Litharge)—Emetics or stomach pump; mucilaginous and albuminous drinks; external heat. *Sodium* and *Magnesium Sulphates* are best *chemical* antidotes.

Mad Dog Bite—Tie band around limb above wound; cauterize wound; apply clean dressing; clean the body internally and externally; do not eat while excited; rest and do not become frightened or resort to any serum treatment. The *fear* and *Pasteur* treatment may do more harm than the original bite. Sanitation of the wound (and mind) should be maintained.

Matches (Phosphorous)—Sometimes children eat the ends of matches and are poisoned. The antidotes are the same as that of phosphorous. Give emetics and then purgatives, followed by flaxseed tea or slippery elm. (Fats or oils should not be given.)

Meats, Putrefied—Produce vomiting and follow by vinegar or lemon juice.

Mercury (Bichloride of Mercury, White Precipitate, Red Precipitate and *Calomel)*—White of eggs freely, followed by stomach pump; external heat and respiratory stimulants.

Mushrooms—Evacuate stomach and bowels; stimulate.

Nicotine or *Tobacco*—Wash out stomach; stimulate with spirits of ammonia; whiskey or water.

Nitrate of Silver—Common table salt in water; stimulate.

Nitre—Produce vomiting, then give drinks of barley water, followed by an oil or lubricant.

Nitric Acid (Aqua Fortis)—Give freely of calcined magnesia in little water; chalk or lime water; strong soap and water. Wood ashes and sweet milk will sometimes be useful if nothing more efficacious is at hand.

Potash (Caustic Potash)—Drink freely of water with vinegar or lemon juice in it.

Rat Paste—Quick vomiting of salt and mustard, then flaxseed tea freely.

Saltpeter—Induce vomiting gently. Give flaxseed tea or gum water. Milk or white of eggs.

Snake Bite Poison—Tie band around limb above bite; cauterize wound; apply clean dressings; do not get excited and do not worry.

Stings—Apply salt water, or sweet oil, or fresh mold. Always take out the sting of the bee.

Strychnine (Nux Vomica)—Give freely any fatty matter, sweet oil, lard or lard oils; let patient take of it a pint at a time and have it vomited each time by passing the finger down the throat. Give two teaspoonfuls of baking soda dissolved in a little water. *Tannic Acid* is the chief chemical antidote (in draughts of warm water).

Tin—White of eggs and milk or sugar water.

Turpentine—Epsom salt; albuminous drinks; flaxseed or slippery elm tea; fresh air.

An "Emergency Knowledge" of Toxicology (the study of poisons and their antidotes) is a very important matter and should be possessed by every intelligent and up-to-date person.

HOW TO LIVE TO A RIPE OLD AGE

PAST AND PRESENT MODES OF LIVING COMPARED

Methuselah, of biblical fame, lived to be nine hundred years of age. When one takes into consideration the natural mode of living at that time, the healthy parentage and ideal environment, one begins to actually believe it. Picture a period of human history where no one had to worry about losing his job, or finding one; when adulterated food, poor combinations of food, gluttony and hasty eating in order to be "on time" did not exist; where conventional lies and hypocrisy did not prevail; when cheating and exploitation were not popular; when mere possession of wealth did not give one prestige, presidency in a lodge or a political office; when no one laughed at you if your nails were not manicured, if your hair was parted in the middle and if you did not enjoy arch-breaking high heels, tight corsets, stiff collars, belts and clothes-worshiping generally. Picture that society where fresh air was uncontaminated by the factory smoke, where one was surrounded by golden sunshine instead of our present brick tenement which is air-tight and productive of tuberculosis; a society where constipation did not exist; a society where abusive habits such as smoking or chewing skunk weed, booze guzzling, animal-flesh eating, sexual debauchery, palate-tickling with

artificial sweets and stimulants did not exist; a society in which it was not even stylish to sever relationship with your appendix; in other words, a society where one was himself instead of the next fellow; where the incentive to false modesty, whining, pleading, begging, stealing, abusing, maligning, and the trinity of profit, interest and rent, have not yet made their début; where one went to sleep with a clear conscience and a clean body when the sun went down and waked in the morning with the break of day, when the sunlight beckoned beyond the horizon; when a day's work well done had earned a night's repose.

In such an age it was possible for men and women —and they *were* men and women in the real sense of the term—to prolong youth with all its natural joy and blessing and defer old age indefinitely. But to-day, in our boasted civilization, where nobody is sure of his to-morrow; where the landlord, butcher, "boss," iceman, milkman, next-door neighbor, friend, competitor, doctor, lawyer and minister must all be accounted to and reckoned with; where after a hard day's toil one is too exhausted to "dabble" in real art, music, literature, history, philosophy or cultural interests of life; where the "movies" become the poor man's opera; where woman is not only a slave to fashion and society, but the slave of a slave; where men exterminate themselves and each other by means of war, hatred, debt, patent medicines, vaccines, haste and the eternal mad rush for mere existence—in our busy era it is hardly possible to maintain any degree of health or prolong youth to maturity, much less attain a ripe old age. Men and women to-day

become old, anatomically speaking, while they are still young.

EARLY SYMPTOMS

The first symptoms of old age should not appear before the fiftieth year or more. There are, however, sad to say, many persons on the border line of thirty or younger who begin to show symptoms of senility or old age. Just look at those who complain of falling hair, gray hair, loss of teeth, wrinkles in the face, corpulence, cold extremities, weakened memories, depressed minds, impotence and other such abnormalities. The question arises: Is it possible to overcome these?

CHEMICAL AND PHYSICAL CAUSES OF OLD AGE

The chemical and physical changes that take place in our bodies resulting in what is termed old age are due specifically to the accumulation of hardening and irritating substances of a fibrinous, gelatinous and earthy material in the system. Every organ in the body, during old age, is more or less prone to ossific or bony deposits. The earthy deposits consist mainly of phosphates and carbonates of lime in combination with other calcareous salts. These bony and stony deposits accumulate in our bodies from early youth. After middle age they begin to interfere with normal functions of certain organs, cause imperfect circulation, harden heart structure and blood vessels and block them with calcareous or limey substances. Normal elasticity thus gives way to senile rigidity.

FOODS PRODUCING DEPOSITS

It is sad but true that almost everything we eat contains calcareous or limey matter to a greater or less degree. Bread, "the staff of life," deposits large quantities of these salts in our blood stream. In fact, all nitrogenous foods, such as meats and fish, contain a large percentage of calcareous or earthy matter. A diet omitting meats, starches and stimulants should be preferred. In fact, the more simple and natural the food, the better one's state of preservation. Hence a diet composed chiefly of fruits, nuts and vegetables is best adapted for the prevention or suspension of ossification, which irritates and clogs up the functionary portions of the kidneys, heart and lungs, causing premature old age.

FOODS

First and foremost, moderate eating should be adopted as a preventive measure for retarding the advent of senile decay. Large eaters dig their graves very rapidly. It is better to eat often, consuming small quantities, than to overeat in one or two heavy meals and boast to friends of eating only "one meal" a day. If possible no animal food should be eaten. No animal other than human has his food cooked or applies fire to it; and there is no being so unhealthy as man. *No matter what food you eat, the more raw the food the better for your health.*

DISTILLED WATER

One of the great secrets for preventing old age,

or keeping "old age matter" out of the system, is *drinking plenty* of *distilled water* (the process of distillation being that of separating volatile from fixed parts, in any liquid, by heat). Most water that we drink is not pure. Even fresh rain water absorbs filth from the air and from other objects with which it comes in contact and is therefore contaminated. If such water, that holds in solution mineral solids or impurities, be taken into our systems it is but natural that the filthy or earthy deposits accumulate in our systems. In order to get rid of this stony matter in the water it must be distilled. Whereas the impure water leaves solids or irritable matter in the walls of our blood vessels, the distilled water gradually absorbs and washes out the deposits already in the body.

SUMMARY OF RULES

To avoid premature death and to prolong life, as well as to live to a ripe old age, consider the following precepts:

Live as much as possible in the *open air*, breathing deeply and regularly through the nostrils.

Take plenty of *exercise*, considering, however, the condition of the body at the time. When walking or riding in the open prefer the sunny side. Always welcome the sunshine. If for some reason exercise cannot be taken, then massage movements should be had regularly as a means of promoting circulation of the blood stream.

Take baths as often as possible. A Turkish bath occasionally, if one is not too weak, is of benefit.

Let *Early to bed and early to rise be your maxim.*

See to it that there is sufficient ventilation from open windows or doors. Sleep in a darkened room and remember that too much sleep is sometimes worse than not enough. No adult should sleep less than six or seven hours nor more than eight hours, unless ill. Do not cover your head as though Old Bogy was going to catch you, and do not use too much covering. If cold, keep the feet warm with a hot bottle.

Take at least one day's complete *rest* each week. It matters not what day is selected. Any day looks good to mother nature.

Drink plenty of water—*distilled water.*

Let the *diet* consist mainly of fruits, nuts and vegetables. If milk is desired, be sure it is raw milk (not pasteurized). If dairy products are eaten they should be taken in moderation. And by the way, *do* chew your food a little more slowly.

Partake of no *coffee, tea* or *tobacco.* They are drugs and should be taken under the directions of a physician.

Partake of no *stimulating concoctions* such as beer, whiskey, wine and the like.

Fasting occasionally is a most wonderful restorative and an aid to health and long life.

See to it that your *bowels operate* daily. Plenty of clean water and fruits will usually be sufficient, although bran muffins and prunes may sometimes be of service.

Do not take medicines at random, especially patent medicines. If you really think you need them, consult a physician.

The natural, clean and health-promoting *vaccines* and *serums* are fresh air, sunshine, good food, clean

water, exercise, clean thinking and interest in one's work.

Do not uphold *autocracy in dress.* In other words, do not make a hatrack or clothesline out of your body. Underwear should be light and one suit is sufficient no matter how cold. Wear a light-weight hat, if any.

Do not wear *tight shoes* because it is "stylish" or because the chiropodists want more cases of corns and bunions.

Do not read by *imperfect light*, nor in street cars, trains or jitneys. Think many times before undergoing a surgical *operation.* Surgery, in its place, is a wonderful aid in relieving thousands from suffering, and even in saving lives, but it is overdone. Many times a little more patience, giving nature a chance and applying eliminative and simple methods of treatment would prevent the "cutting."

Get married only if you love. Marriage not based upon love is a desecration of the term. And remember this: Avoid sexual excess, for it is more harmful than sex starvation.

Try hard *not to worry* or become emotional about things which cannot be helped. Do not carry hatred or malice in your heart against any person, no matter how he has offended or injured you. Either forgive him or forget him. When one is angry or harbors irritable thoughts or is revengeful he creates toxins (poisons) in his system and thereby disorganizes his vitality and injures himself; hence do not think harmful thoughts.

The fewer modern luxuries you have to contend

with, such as diamonds, automobiles and the like, the longer will you live.

Develop a hobby if you haven't any.

Do not rush for gold—if you want to be a centenarian.

Develop cheerfulness and optimism.

Do something useful as long as physically and mentally able. Be interested in some human welfare, for it keeps one thinking of something other than himself. This is in itself a remedy, and at the same time there is the wonderful psychic feeling of having done good to somebody.

Any one who will make an effort to live up to the principles given in this chapter, and who will take into consideration other health principles, outlined throughout this book, unless organically defective at the time, can be young at fifty, normal and active at seventy-five, and fairly comfortable at one hundred.

PART II

HEALTH SYMPOSIUM

1. Do Germs Cause Disease?
2. The Vivisection Problem.
3. The Vaccination Problem.
4. The Birth Control Problem.

DO GERMS CAUSE DISEASE?

Dr. A. H. Kaplan, Pathologist, St. John's Hospital, St. Paul, Minn., says YES.

Dr. J. W. Hodge, physician and writer on health issues, Niagara Falls, N. Y., says NO.

This subject has been a "bone of contention" among members of the medical profession and others who have given it study from the day the *germ theory* of disease was announced. The fact that there is so much difference of opinion on the subject makes it the more worth studying and understanding.

BACTERIA *DO* CAUSE DISEASE

By A. H. Kaplan, M.D.

(Especially written for "Timely Truths on Human Health.")

Ever since the first ray of intelligence came to the human mind the subject of disease and death must have occupied a great part of man's daily life. The prehistoric man no doubt had many diseases which are found in our own time. It has always been a question in my mind as to just how they felt in regard to the cause of their maladies.

Later in our development diseases were thought to be administered by a deity for the purpose of punishing individuals when they sinned. We read in the Bible how Jehovah spread pestilence among the Egyptians when they refused to free the Israelites. History is full of similar instances, and as time went on the tradition of such teaching was sanctioned by the church, until to this enlightened age we still have people who believe that all sickness is handed down to the human race by some all-powerful providence, and so we have prayers for this and that disease, the burning of candles and chanting of hymns.

The practice among the savage people of beating drums and building fires around the abode of a sick person were done for the purpose of scaring the evil spirit away from the body; also the custom prevalent

among the early people to trephine skulls so that the disease would escape. To sum up the entire subject, disease was looked upon as being some work of the devil, and if he could be scared away from the body the person would get well.

The one big obstacle which our scientists had to refute was the theory of spontaneous generation, the theory stating that life could be produced from inorganic or lifeless things. This speculative assumption had many supporters until the year 1652, when Francesco Redi proved by experiment that it was an impossibility, and in the same year Harvey made the famous statement, "Omne vivum ex vivo," all life comes from preëxisting life.

Since the foregoing statement was first given to the world the science of Bacteriology has made a marvelous record and has cleared up for man a thousand and one perplexing problems as to the real causative agents of disease. It has swept away the spider webs and octopus entanglements which had covered the brains of men since the dawn of human intelligence and brought to the light of understanding the exact scientific truths learned by experimental and practical observation extending over a century of time. Such truths cannot be refuted. They have been established beyond a doubt; we only have to keep our eyes and ears open to see and hear the confirmation of its statements.

Do bacteria cause disease? Yes, they do; and if any one wants to prove this fact let him take some of the tubercular germs and inoculate a guinea pig or any other susceptible animal and see what will happen. After the death of the animal the destruc-

tive processes in the body can be easily seen, just the same as if the animal got the disease in a natural way.

This same experiment can be performed with any other known organism and it will follow out the postulates of Koch.

With the knowledge which the science of bacteria brought has also come the use of prophylactic and curative measures which act only in specific diseases, thus making such disease a specific thing; to be treated and handled as such no one, who has seen and realized the value of Anti-Diphtheria and Anti-Tetanus serum needs to be told how it has aided man by its fight against the ravages of disease.

Smallpox, a disease which broke out endemically in all parts of the world, decimating the population, has lost its voluptuous appetite, thanks to the work of Edward Jenner, who first practiced vaccination, decreasing the mortality from this disease to an infinitesimal number. Anybody who doubts this statement should read DeFoe's story of the Black Plague, read for himself the diary of one who was an eye-witness to the great pestilence in our history. Do we hear of any such recurrence? No, and the reason is because the human family has been protected by successive generations of vaccination.

If any one thing helps to prove that bacteria cause disease it is our sanitary system. Look up the history of the building of the Panama Canal and read how the battles against diseases were fought by the sturdy engineers and other workers until the work of the canal had to be condemned because Malaria and Yellow Fever cut them down, making that country

a white man's grave. So it remained until Gorgas came and cleaned the land of its malaria-breeding swamps, after the causative agency of this disease was found to be a small protozoa which was carried in the blood of a certain mosquito, by cleaning up its propagating grounds. The disease was wiped up, until now Panama is as healthy a country as any one land in the world.

After that discovery by the medical investigators the canal was completed and the world has seen and began to realize its practical value. So you see that the best technical skill could not overcome the simple mosquito. We can see similar examples right in our own cities. In the cities which have the cleanest streets, where the water supply is kept free from pathogenic bacteria, where contaminating influence from garbage and sewage is reduced to its minimum, the mortality is at its lowest, and *vice versa.*

Typhoid fever epidemics which were so common years ago are now practically unknown. Why? Because we understand the etiology of the disease and keep away the bacteria of Typhoid from our intestinal tract.

Hydrophobia was at one time thought to be incurable, and every one who was ever bitten by a rabid dog died. Louis Pasteur, the great French scientist, became a human benefactor by establishing a curative and preventive measure for that disease.

If I were to classify our history I would put that period before antiseptic surgery came in use as that belonging to the dark ages. One of the greatest humane discoveries in the medical realm was that of anæsthesia and antiseptic surgery. Can you im-

agine putting a patient on a table and cutting into him while fully awake? Can you imagine the suffering and pain he had to endure, at the same time he was infected from the dirty hands of the operator?

What brought antiseptic surgery about? A few words will answer the question. Pasteur's investigations into the cause of infections as being due to bacteria in or about the patient, instruments and operator, and Lord Lister's application of this knowledge by using chemical disinfectants to destroy the bacteria on whatever substance came near the wound. What was the result?

Post-operative infection was reduced 80% immediately, and now an infection means unclean surgical work. If you ever go to witness an operation you will notice how scrupulously clean the place is; you will also notice that instruments and cotton material used are all sterilized either by high pressure sterilization with live steam, or boiled.

The surgeon and attending nurse are dressed with sterile clothing, and hands in sterile rubber gloves, the nose and mouth covered by gauze. The patient, on the other hand, has been cleaned internally and externally, and the site of operation sterilized, he is covered with sterile material, the only opening being the small site of the incision. Compare a scene like this to one of pre-Listerion days and what would you say?

If any of the old physicians would come to life again and see how work is done now they would return to their graves for shame.

In every part of the United States where vessels from foreign countries come are stationed guardians

of the United States Public Health Service, who see that the cargo of human beings as well as the imported animal life is free from contagious diseases. Quarantine rules are very strict, and all suspicious immigrants are detained and observed for further symptoms of disease. In that measure Plague, Typhus, Cholera and other diseases have been kept away from our doors. The reason we do these things is because the causative agents of these diseases are thoroughly understood, together with their intermediate carriers. Rats, being the carriers for Plague, are destroyed in the holds of the ships by fumigation.

One of the most pathetic periods in our entire history is the time when puerpural fever was very common, but when the relationship of bacteria to disease was established this dreadful disease was exterminated.

In one of the large hospitals of Vienna it was the custom of physicians to go to the lying-in chambers after coming from the autopsy room without taking any sanitary precautions. The result was that the greater percentage of women who entered that ward never came out alive.

Semmelweis, the chief of that section, introduced the custom of washing the hands with chlorine water, and in a very short time the mortality dropped to a very small figure. What was the cause? The answer is a very simple one to us at the present time, but during that period it was indeed a very uncertain thing.

The bacteria from the cadavers were carried by the student's hands direct to a live, warm body, im-

planting the organisms into a fertile field when the growth could be luxurious. Infection, as you can see, was inevitable, and it was so that hundreds of women never left that hospital, carrying with them to the grave their unborn children.

The antiseptic value of Semmelweis' chlorine water was perhaps of little potency, but the continual use of the solution inculcated into the minds of the worker the idea of cleanliness when dealing with the human body. If any one should come to Vienna now they will see in one of the city's largest parks a statue of Semmelweis donated by popular subscription by women of Europe to honor their liberator from avoidable death.

BACTERIOPHOBIA AND MEDICAL FADS

By J. W. Hodge, M.D.

The startling announcement comes through the columns of the yellow journals that the germ of insanity has now been discovered. What next? Who next? So much is being written nowadays in the orthodox medical journals and exploited by the sensational newspaper press about disease germs and their ravages that practical people are beginning to inquire: "Where are we at, and where is this craze about germs to end?" Health boards, in their great zeal to save the "dear people" from the assaults of these microscopic monsters which, we are gravely told, swarm in the air we breathe, in the water we drink, in the food we eat, and lurk on the lips of lovers in millions, billions, trillions, quadrillions, quintillions, and so on *ad infinitum*, are squandering millions of the public funds in waging an incessant and futile warfare upon these imaginary foes of human existence. Every day some hitherto unheard of bacteriologist heralds through the yellow newspapers the alleged discovery of some new form of microbe with a long Greek name. Every day some germ-crazed theorist hysterically points to a new form of danger hidden under some familiar guise, and anxiously asks how it is to be met and overcome. Nearly every

day fresh horror is added to human existence by the blatant announcement of some alarming discovery purporting to bear the hallmark of science. The orthodox medical journals of the self-styled "regular" school are as full of germs as the Sahara Desert is full of sand. A newly discovered disease germ is officially reported every morning at 8:30. Had the discovery of these germs had anything to do with the prevention or the cure of diseases people must long ago have ceased to die of cancer, cholera, consumption, diphtheria, scarlet fever, typhoid fever and pneumonia. The stubborn fact, however, remains that the above mentioned diseases are quite as prevalent and fatal at the present time as they were in the pre-microbian period; while two of them (cancer and consumption) have been rapidly increasing in frequency since the discovery of the germ theory was announced.

Serum therapy, the outgrowth of the germ theory, is regarded by many eminent pathologists as the principal factor in the increased prevalence of cancer and consumption. Serum therapy, by employing as remedies the products of diseased animal tissues, necessarily disseminates communicable diseases among the people. The fact that statistics show a greater death rate from the above named diseases since the wonderful discovery of the germ theory, and since boards of health have been vested with authority to force this ruinous fad upon physicians and the people, is strong evidence of the injury wrought by this monstrous medical fallacy. If we are to believe the germ theorists, all the actions of our daily life, our letters, our money, our books, our

clothes, our dwellings, the trolley car, the cab, the waiting room, the train, the theater, the drinking cup, our every bite and sup—all are fraught with the most hideous perils. It is, indeed, touchingly pathetic to witness the hold which the modern craze regarding germs and their destruction has obtained upon the minds of the credulous and emotional classes of society, as well as upon sensational newspaper editors and reporters, who implicitly follow faith instead of reason. If we believed one-half of what the microbe theorists tell us we would not dare to breathe, eat or drink. There can henceforth be no rest for the man or the woman who believes in the disease germ and its universality. The credulous people of this germ-infested planet might just as well realize first as last that there is no safety for them unless they get fumigated and be hermetically sealed up in sterilized glass cases, or jump into a bath of carbolic acid and remain there.

There is a popular impression among the misinformed that the medical profession is unanimous in its acceptance of the germ theory of disease; that is, the theory that all infectious and most other diseases are due to the entrance of living micro-organisms into the bodies of those affected. This impression is grossly erroneous. Many of the most advanced thinkers in the medical profession, both in this country and abroad, are frank in the expression of their convictions that the germ theory has no scientific basis upon which to rest its claims. It is a mere fantasy of fussy microscopists who know little or nothing of the real nature of disease. Moreover, many investigators who were at one time identified

with the germ theory are now on record as having abandoned it as untenable. For instance, at the thirteenth triennial session of the International Medical Congress, held in Paris in 1903, Dr. Rudolph Virchow, who is conceded to be the world's leading authority on this subject, frankly said: "Microbes are always found where there is disease. They are also found where there is no appreciable disease, and may be the result and not the cause of disease." This statement coming from one who was formerly a leading advocate of the germ theory, is significant indeed. It is safe to assert that no sensible physician believes one-half of what the germ faddists say about the alleged ravages of the minute organisms called disease germs. The experiments performed on their own persons a few years ago by Professors Pettenkoffer and Emmrich of Munich, Germany, gave the germ theory a blow from which it has never recovered. At one dose Prof. Pettenkoffer swallowed several millions of the comma bacilli (germs of Asiatic cholera). Prof. Emmrich repeated the experiment a few days later by swallowing a culture containing many millions of cholera germs. For more than a week these professors had in their alimentary canals countless millions of the real cholera germs, the lineal descendants of the comma bacilli, taken from the intestines of persons who had died of Asiatic cholera in Hamburg, still neither of these physicians suffered from anything like cholera; neither did either of them experience any appreciable effect from the large quantities of active cholera germs swallowed. The ludicrous aspect of these experiments was emphasized by the fact that while

North and South America were in a state of hysterical panic through fear that the comma bacilli might gain entrance into this country, and while a number of eminent physicians were kept busy explaining to the frightened public the fearful results that would surely follow from the presence of these "germs," two eminent German professors were walking about attending to their duties while harboring within their bodies countless millions of the "deadly" cholera germs. When the germ doctors are pressed for an explanation of such occurrences as these they will tell you that the professors were insusceptible; that disease germs will not "take hold" of a healthy person. If this is so, how can the germs be the cause of disease? If it is necessary that a person be in poor health before the germs can "take hold" of him, may not the germs be the result or an incident of the disease?

The discovery that every person's mouth harbors microbes in immense numbers has led certain doctors to denounce kissing as a dangerous pastime that should be put down by the strong hand of the law, though the law still enjoins the kissing of the Bible.

If germs are the cause of disease, isn't it a little strange that anybody should have lived long enough to die of old age before this wonderful discovery was made? History informs us that our ancestors of the pre-microbian period were strong, healthy people who attained on an average a good old age, notwithstanding their blissful ignorance of the presence of disease germs and how to escape them.

Another crushing refutation of the germ theory of disease is found in the fact that germs or "patho-

genic" micro-organisms, which are supposed to be the essential cause of certain diseases, are found to prevail in populous localities from which these diseases are permanently absent. For instance, Prof. Metchnikoff, a renowned authority, tells us that he has found the bacilli of Asiatic cholera widely diffused in the waters of many localities, while these same localities were practically free from cholera. Metchnikoff also says: "The bacilli of typhoid fever have been found in inhabited localities in which typhoid fever has never been known to occur." This statement is corroborated by the testimony of many eminent bacteriologists and is denied by none.

The Klebs-Loeffler bacilli, which are supposed to be the essential cause of diphtheria, have been repeatedly found in the mouths of healthy people who never suffered from anything like diphtheria. By actual experiment it has been demonstrated time and again that the so-called germs of diphtheria when swallowed in immense numbers by human beings and injected subcutaneously into their bodies have invariably failed to produce anything resembling diphtheria.

Again, many cases of disease attributed to certain so-called "pathogenic" micro-organisms have been met with where the specific germ, on diligent search, could not be found. In these cases the adherents of the germ theory boldly assert that "the bacteria were undoubtedly present, although the bacteriologists were unable to find them." Thus have the germ theorists been routed from one untenable position only to take up another.

Again, it is a well-known fact that all mucous ori-

fices of the body, even of healthy persons, swarm with pathogenic bacteria of many descriptions, some of them being of the supposed most virulent character. But some one asks: "Do you deny the existence of germs?" I answer, "No." The germ is a fact, a fact of great interest to the biologist, but of little importance to the pathologist. Germs are a physiological fact, but the attempt to consign them to the domain of pathology is a libel on these tiny harmless creatures which swarm in all vital air, in all sparkling drinking water, in all wholesome food, and in every healthy tissue of our bodies. Again somebody asks: "Do we not find germs in diseased as well as in healthy tissues?" Again I answer, "Yes," They are there as scavengers, as friends to the patient and as foes to the disease. To charge them with having caused the disease would be as unfair to them as it would be unjust to charge the street scavenger with having produced the filth which he is engaged in removing.

AUTHOR'S COMMENT

I. From a pro-germ theory standpoint Dr. A. H. Kaplan has written an interesting article. He, like all human beings, has a right to express his views fully and freely, no matter what they may be or how widely they may happen to differ from our own. We should all learn to "agree to disagree" and be truly tolerant.

II. Why we believe germs do *not* cause disease:

The author, like other physicians, used to believe in the germ theory as the cause of so-called "contagious" disease as rigorously and as reverently as anybody could. He even got angry (in his overzealous support) with those who used to oppose the germ theory.

We now agree with those members of our profession, and intelligent persons out of the profession, who hold that germs do *not* cause disease. We hold that *disease* causes germs. Further, we feel that there is more harm from *fear* of germs than from germs themselves.

We do not claim that there are no such things as germs, but maintain that the *importance* of the germ, as the *cause* of disease has been—like the false story of Mark Twain's death—greatly exaggerated.

The specific germ is only the *symptom* or *result* of broken-down cell structure instead of the cause. In

other words, the disease is *primary* (brought on by lack of sufficient air, sunshine or by abnormal living), and the germ is *secondary*—an after effect.

Disease germs are *everywhere*. The air is full of "contagion." And if the present-day notions concerning the extreme importance of disease germs and their destructiveness were true, the human race could not exist for one hour.

If germs *do* cause disease, what causes germs? Where does brother germ come from? Why do they not affect all alike? And lastly, have we less illness in the world to-day, since the germ theory of disease had made its début?

Why not look the thing squarely in the face and realize that if the people had better economic conditions and were allowed to learn the importance and beauty of natural living, such as eating for efficiency, having plenty of fresh air, sunshine, clean water, wearing suitable clothes, taking systematic exercise, bathing properly, using the nose for breathing instead of retaining it as an ornament as for powdering purposes, and thus building clean blood, good vitality and will power (the trinity of resisting agencies toward *any* abnormal manifestation, we commonly term disease), if only humans would do this, they could look a germ squarely in the eye and "kill it with a smile."

To those who are really interested in the study of the *microzyma* (commonly known to-day under the name of *microbe*) we suggest and urge the very unusual and startling book, "The Blood and Its Third Anatomical Element," by Dr. A. Béchamp, formerly Professor in the Medical Faculty of Montpellier

(France), Corresponding Member of the Academy of Medicine, etc. This book has been translated from the French by Montague R. Leverson, Ph.D., M.D., of London, England. (Published by John Ouseley, Limited, 6 Fleet Lane, Farrington Street, London, E. C.)

THE VIVISECTION PROBLEM

Vivisection is the cutting or operating on living animals experimentally with the aim in view of ascertaining physiological and pathological facts, to be employed if and when possible in the prevention and treatment of human ailments.

Human, as well as sub-human, vivisection exists.

The subject of vivisection is not only interesting and instructive for any truth-seeking person, but is vitally important because of its fundamental nature.

The *germ theory* of disease, *serum-therapy* and *vaccination* are interwoven more or less with the subject of vivisection.

Pursuing his usual policy of tolerance, the author presents both sides of the controversy in articles by worthy experts, reserving his own opinion until the last.

THE VALUE OF VIVISECTION

By F. A. Tondorf, S.J., Ph.D.

(Head of the Department of Physiology, Georgetown University, Medical School, Washington, D. C.)

The human body has not been fashioned by human hands. It is a masterpiece of the Master Builder. Every age has been parent to men big enough to appreciate this master work and generous enough to sacrifice their lives in caring for this "Piece of Work," as styled by Hamlet. Only within recent years has medicine established its right to recognition in the school of science. This principally because of Animal Experimentation. Yet to-day unbalanced sentimentality and irrational hysteria would deny this right and stay Medicine in its rapid onward march. . . .

It is with the sole purpose of disabusing the public mind of any false notions which this persistent body would place in the way of securing and promoting means and methods toward fostering public health that these few items are modestly tabulated.

ETHICAL ASPECT

God has unequivocally entrusted his creatures to man to be of service to him in the prosecution of his necessary end. Accordingly, every one has an un-

questionable right to their use for any lawful purpose he sees fit. I emphasize lawful purpose, the norm being that in this use man violates no obligations toward God, himself, or his fellowman. This the so-called animal-right notwithstanding.

Ethically an animal has no right. A right is a moral power, and a moral power is resident only in a rational being. Invoking barnyard right, therefore, is codifying barnyard morality. The inference is clear, that no irrational being can suffer an injustice, for there can be no injustice where injustice is not recognized and where no unwillingness is manifested on the part of the subject.

Wanton use, a use involving unnecessary pain, is strictly inhibited, for therein man sins against himself. Pertinently mentionable in this connection is a tome compiled by one anti-vivisectionist, Leffingwell, entitled "An Ethical Problem." The volume belies its title so effectually that it would outwit the wits of an Aristotle to find therein even the semblance of a moral argument. Yet to this farrago the dogophiles unremittingly point as to their Bible.

THE ACHIEVEMENTS OF VIVISECTIONISTS

The economical advantages derived from animal experimentation are so vast that even a condensed story thereof would far exceed the limits of the space allotted me in this volume. To do so I should have to rehearse the laboratory findings of Harvey, Pasteur, Loeffler, Leishman, Lister, Czerny, Ferrier, Hitzig, Carroll, Reed and a score of others of more recent date, men whose names a grateful community should dig deep in their heart of hearts—I should

have to tell the long story of the science of physiology, the study of the functionings of the animal mechanism. This would carry with it the history of the discovery of the circulation of the blood, of the workings of the viscera, the brain, cord and nervous system generally.

BACTERIOLOGY

Long would be the page that would tell what animal experimentation had done to eradicate that great scourge, typhoid fever. Frightful indeed this page on the pre-vaccination days. It would tell that in the Civil War, between July 1, 1862, and June 30, 1866, there were 57,400 cases with a death toll of 5,360. That during the Spanish War more than 90 per cent of the volunteer regiments was heavily infected within eight weeks after going into camp. That there were 20,738 cases of the fever in a little army of 107,973 men, the mortality 1,580, or 86 per cent of the mortality from all causes. Consoling though the closing lines in that they chronicle that during the two years of the World War in which approximately 4,000,000 men served in the army, half of whom saw service in France, there were but 1,065 cases of typhoid fever, that for the period of September 1, 1917, to May 2, 1919, but 213 deaths were filed in the office of the Surgeon General. And all this the result of preventive inoculation made possible through animal experimentation. Pity that dumb animals cannot take voice and air in full their pride for the sacrifices they have rendered victims of the white plague, victims representing conservatively one per cent of the population of the States. Pity

that these so-called humanitarians would hush the babblings of salvaged tots, pet words of gratitude to their animal friends, friends which in the skillful hands of a Flexner of the Rockefeller Institute preferred a check to the epidemics of cerebro-spinal-meningitis and poliomyelitis, popularly known as infantile paralysis. Reluctantly I leave bacteriology for surgery.

THE ACHIEVEMENTS IN SURGERY

The achievements in surgery are no less lengthy than those in bacteriology. There is the work of Ferrier, Hitzig, Sherrington, Greenbaum and others who, by their investigations on monkeys, showed the way to the removal of a clot of blood, tumor, or whatever else from the brain. By experiments on animals it was found that when all of the parathyroids were removed, tetany set in, and this showed the surgeon that in surgical operations for goiter, at least one parathyroid gland was to be left in situ. Before removing the larynx for cancer in man, Czerny experimented on dogs and found that they survived the operation and continued in normal health following the removal of this organ. This was the establishment of a life-saving operation for man.

When Simon in 1869 demonstrated that a dog could survive the operation of the removal of a kidney and that no serious consequences followed the ablation, surgeons took courage in performing a like operation on man, and this operation is commonly resorted to to-day when this organ has become pathologically involved.

The transplantation of bone or periosteum, first successfully tried on dogs, is now the frequent practice of the orthopedic surgeon.

Forty years ago a wound of the heart bespoke certain death. In 1895 Rosenthal and Del Vacchio successfully sutured the canine heart and to-day the surgeon dares insert the needle into a living human heart which has suffered grievous hurt to behold the organ renew its healthy pulsing as if in rhythmic plaudit of its healer's skill. Sanguine is the hope that with further advances in animal experimentation the day is not far distant when the surgeon's knife may find its way even to the heart valves, there to set aright existing anomalies.

ACHIEVEMENTS IN ANIMAL INDUSTRY

The achievements of animal experimentation in animal industry has meant fewer losses and greater productivity, or paramountly better and less expensive food and apparel. It is unquestionable that every experiment that has shed light on the nature of the human body and its relation to its environment has done likewise for the lower animals. Hence, if the proportion between the pain animal experimentation has caused and prevented amongst animals alone was taken as the major factor in determining whether animal experimentation is sound or not, we would not be left in doubt for a single moment, for the pain occasioned is quite insignificant in comparison to that which has been prevented.

Diseases of animals, like those of persons, may be divided into two classes, the infectious and non-infectious, or those of parasitic origin and those due

to other causes. I shall content myself in discussing an instance or two of the first type.

Texas fever is singular in that it has the distinction of being the first disease proved to attack its victim through the agency of an intermediate host or carrier. The host is the southern cattle tick. Less than fifteen years ago the prevalence of this plague necessitated the maintenance of a cattle quarantine which included an area larger than three-quarters of a million square miles. A fairly reliable estimate may be formed of the losses entailed when it is stated that a light infestation reduced the milk yield of dairy cows 18 per cent, and a heavy infestation more than 40 per cent. Add to this the loss in beef production, the lowered value of roughened and scarred hides and the deaths due to the fever, averaging for eleven States up to 15 per cent, and the problem appears appalling. In 1906 the United States Bureau of Animal Industry inaugurated the methods of eradicating the disease, methods quite naturally revealed through animal experimentation, with the result that over a half million square miles were rid of the scourge and its carriers.

A second instance is tuberculosis amongst cattle. Animal experimentation proved that the manifestations of tuberculosis in different portions of the body and in the bodies of different species of animals all have one essential cause; it proved that the disease is contagious; it showed how and why it is contagious; it led to the discovery of the tubercle bacillus; it proved that the tubercle bacillus is quickly destroyed by light and may long remain alive and virulent in dark places; it proved that there are three

types of tubercle bacilli, the human, the bovine and the avian; it proved that human and avian types have no important significance for cattle; it proved that the avian type is not an important cause of disease among mammals; it proved that the human type is the commoner cause of tuberculosis in human beings; it proved that children often are attacked by the bovine type; it proved that the bovine type is the commonest cause of tuberculosis among domestic mammals; it led to the discovery of tuberculin, without which, used as a diagnostic agent, the control and eradication of tuberculosis among food-producing animals would be impossible, etc.

If animal experimentation had not proved that tuberculosis among cattle can be eradicated, wholly exterminated, and its recurrence prevented, without regard to its continued persistence among human beings, the cattle tuberculosis eradication work, for which Congress now appropriates one and one-half million dollars annually, would assume the character of a hopeless and ridiculous project, unless utterly unreasonable measures were taken to prevent the reinfection of cattle with tubercle bacilli from human sources. . . .

Tuberculosis among animals in the United States alone, on the basis of the lowest estimate, which I am convinced is far too low, destroys at least twenty-five million dollars' worth of urgently needed food per annum. This estimate was figured before the war, at a time when milk cost the consumer eight and not eighteen cents per quart, and when prime roast beef and porterhouse steak retailed at from eighteen to twenty-five cents per pound.

I might further instance the diseases of durine, indigenous to the horse; surra, which makes little choice in its victims; hog cholera, carrying in its wake a yearly loss of over two millions of dollars; rinderpest, food-and-mouth disease, anthrax, black-leg and sheep scab, but these would carry me too far afield. In concluding, I cannot but insist that this problem of animal experimentation is one too serious to be weighed solely in the balance of sentimentality. Every self-respecting brute would raise its voice in protestation against such a procedure. The *salus populi* is clearly the *lex suprema* here.

VIVISECTION USELESS

By Joseph D. Harrigan, M.D.

(Practicing physician over thirty years in New York City; writer on health topics.)

As a physician who has been actively engaged in the practice of medicine in New York City for a period of over thirty years, and one who has fully examined both sides of the vivisection question, biased by no sentimentality in the matter whatsoever, it affords me extremely great pleasure to lay before the bar of public opinion the results of my investigations, feeling sure the public, in its final judgment, will not permit vivisection to continue its existence as a "blessing to humanity," but will condemn it as one of humanity's greatest of curses.

It is claimed that opponents of vivisection stand in the way of progress in medicine. Inasmuch as vivisection has had full sway in the medical profession for over two thousand years, this claim must be discarded as ridiculous on its very face; also, had the results obtained from the practice been worth while, any opposition that might have arisen would have been lost in the dazzling splendor of the glory surrounding the long line of brilliant successes in this field—*had there been such successes.* . . . Were its successes bona fide, unclouded and absolutely true there would be few opponents to vivisection. That a strong opposition to the practice exists—ever

growing stronger—is due not to sentimentality, but to the growing conviction of its uselessness.

Lister, with his "wonder-working" antiseptic system of treatment, discarded his own pet treatment after it had worked widespread mischief, confessing he was sorry he had ever used the antiseptic spray, etc.; and yet every little while this triumph (!) of vivisectional magic is trotted out for exhibition, as though aseptic surgery were not in existence. Lister's well-deserved fame rests upon his devotion to *cleanliness* and not upon vivisection.

So, also, as regards Harvey's discovery of the circulation of the blood. *Dissection of human bodies in the dead house*, whereby he discovered the peculiar construction of the valves in the veins, this construction permitting the flow of blood only in one direction, gave him his most important clew to the working out of the problem of the circulation, *and not vivisection by any manner of means.* Sheer reasoning from observed facts in the course of his *dissection* is entitled to the credit for his discovery. Had he not noted in dead bodies the actual construction of the veins his famous discovery might have been postponed indefinitely. He never observed this peculiarity of construction in the valves in living animals; it was only in *dead* bodies. And yet the vivisectors try to "claim" this discovery! There is enough evidence in these two cases of Lister and Harvey to warrant the finding of a sweeping verdict against the vivisectors.

This amusing plan of the vivisectors to lay claim to everything is well shown in the matter of yellow fever in Havana, which city was cleaned thoroughly

for the first time of its filth-encumbered existence. In consequence the miasm of the yellow fever phase of disease hadn't the slightest chance to develop because the filth that helped to produce the miasm was gone. *Cleaning the city* did it, but the vivisectors piratically attempt to capture the credit for themselves.

The natural decline in incidence of epidemic disease is taken unfair advantage of by the vivisectors. This was notably the case when diphtheria antitoxin was foisted upon long suffering humanity.

The epidemic of diphtheria, during which antitoxin appeared, was already on the wane when this so-called remedy was introduced, and it received the credit for driving away this phase of disease. Diphtheria had been on the decline for several years before antitoxin was in existence, but good press-agent work usurped for antitoxin the credit that should have gone to the same agency that caused the yellow fever or the influenza epidemic to vanish for a while, just as they had done hundreds of times before, as well as the thousand and one other varieties of epidemic disease that had betaken themselves to parts unknown.

The same holds good for the claims made for typhoid inoculations. Every bit of credit is given to inoculation when typhoid does not appear in our armies, but not one iota of credit is given to the workings of natural causes, or to the wonderful results from sanitation. During the Russo-Japan war inoculation was not used by the Japanese. Instead they made sanitation their reliance, and as a result there was no typhoid.

Apropos of evidence against inoculations, the following appeared in a New York paper:

"Washington, April 4.—Charges of gross carelessness and negligence in preventing and controlling the spread of typhoid and paratyphoid fevers in the army are made against many medical officers serving with the forces overseas, in a circular published by the chief surgeon of the American Expeditionary Forces and made public to-day by the Public Health Service in connection with a warning that vaccination does not give complete immunity from typhoid. The chief surgeon cites many instances where epidemics prevailed among troops. In a brief review of the occurrence of typhoid fevers in the Expeditionary Forces, the chief surgeon says that from June, 1918, the disease spread through many units. During the Château-Thierry offensive, the circular discloses, 75 per cent of the troops engaged were afflicted with diarrhœal diseases, such as simple diarrhœa, bacillary dysentery, typhoid and paratyphoid. According to the chief surgeon the high incidence of intestinal diseases in this section was due to entire disregard of the rules of sanitation. . . ."

On the peninsula of Gallipoli there were 96,000 cases of medical illness during the short time the British troops were engaged there. Among these 96,000 cases of disease there were enteric cases as follows:

Dysentery	17,837 cases
Pyroxia	1,490 "
Typhoid	425 "
Paratyphoid	8,103 "

Now, very conveniently for their own ends, the in-

oculationists have seen fit to make distinctions between the different "phases" of the one disease condition; that is, the "typhoid" condition was made to almost disappear, and paratyphoid A, B, C, D, . . . X, Y, Z, loomed large before the dust-filled eyes of a befooled laity.

Absolutely ignoring the fact that there are "stages" or "phases" in disease conditions of non-epidemic nature—for example, syphilis, tuberculosis, scrofula, scorbutus, etc.—they had the audacity and crass unfairness to draw sharp lines of demarcation between certain of these "phases," as though they were, pathologically, entirely distinct, when no such distinction could by any manner of means be truthfully said to exist. If this wild method of procedure were to prevail throughout all medicine we would be calling the secondary manifestations of syphilis not syphilis at all, but entirely new diseases; tuberculosis of bone would be an entirely different disease from tuberculosis of the lungs; diabetes, with coma, would be a distinct disease from diabetes without coma, etc.

As regards other phases of disease such as poliomyelitis, the statistics of the N. Y. Health Department refute absolutely the claims made that Flexner, one of the vivisectors of the Rockefeller Institute, had done wonders in wiping this out. In the *Weekly Bulletin* for November 20, 1920, it states that from July 24 to October 10 there occurred in Boston 212 cases, of which 40 proved fatal. Throughout Massachusetts the number of cases was 496.

Every medical man knows that despite two thousand years of vivisectional work upon the stomach

and intestinal digestion in the lower animals comparatively little was learned therefrom applicable to human beings. The truth is that the very foundation and starting point of both these important studies took inception from the observations of Dr. Beaumont, in the one case, upon the terribly injured stomach of Alexis St. Martin, wounded by a gunshot, and in the other, by his careful observation upon the intestines of a woman gored by a bull.

That there is something radically wrong about the theories and practice of medicine goes almost without saying. If you doubt this, just scan the statistics of the influenza epidemic that swept over the world two years ago. The records of that mortality are a disgrace to medicine.

For thirty years—ever since 1889-90, when the Russian Grippe—this age-old scourge of humanity—came upon us, the medical profession had had wonderful opportunities of studying this phase of disease in its thousand and one gradations, and surely one would fondly imagine that they would have gloriously mastered it in these thirty years. No better test could have been devised for proving that the medical profession was traveling a straight, scientific path to victory—but the records tell a sad tale to the contrary. The twentieth century medical wonder-workers were as helpless in the face of this enemy as were their predecessors of years ago. *The situation was well summed up in the despairing cry of our medical men: "As far as influenza is concerned, we are all at sea."*

Anyway, should this have been the case with thirty years in which to have mastered the disease in all its

details? There is no reason, except one bitterly humiliating, and that is—the medical profession are mistaken; their medical conceptions of disease of epidemic nature are absolutely, basically wrong. They are no further advanced in their grasp of what constitute the fundamentals of disease than were their predecessors of two or three thousand years ago. . . .

Medicine has made a certain amount of progress, but it has been in *spite* of vivisection and not because of it. This relic of barbaric research has been an obstacle in the way of progress. It is a deluded method of investigation, keeping its devotees enmeshed in the cobwebs of antiquity. It is more on a par with mid-African voodooism than with Roman, Greek or American civilization. . . .

VIVISECTION

By S. Dana Hubbard, M.D.

(Acting Director Bureau of Public Health Education, 505 Pearl St., New York City; Extracts, from an article on the subject, in the August (1920) Bulletin, of the New York City Dept. of Health.)

What is vivisection? A rather broad and general definition of vivisection—as understood and applied by laymen—is the dissection or cutting up of live animals in experimentation.

It is thought, too, by many that this is performed without anæsthetics or only those anæsthetics which paralyze muscular motion and do not prevent pain or suffering.

Further, that such experimentation is done often simply for practice or "showing off," as it were, interesting phenomena. That the vivisectors are men blind and deaf to all evidence of pain and suffering. This is untrue. . . .

We no doubt all agree that experimentation, especially when accompanied by vivisection, should be undertaken only by properly qualified persons and only by those who have a due appreciation of their responsibilities in this undertaking.

Every regard should be paid for the comfort of the animals employed. The ultimate aim of this

work is the *progress of knowledge* and the consequent relief to suffering which is so often the result of ignorance.

The benefits which may accrue from such animal experimentation are felt not only by human beings, but (as in veterinary practice) by animals also.

No attempt will be made by me to defend experiments which have not these distinct aims in view. The ideal experiment is one performed without anæsthesia and without pain. In many cases this ideal can be realized, but in others it is not obtainable.

Pain must be absent (1) on the broad ground of humanity, (2) because it is a far greater disturber of the normal body functions than anæsthetics, and (3) because the struggles of the animal in pain would nullify the accuracy of the experiment, (4) also such resistance would endanger the safety of the delicate apparatus which it is necessary to employ in such work.

Exactly the same argument applies to the study of experimentation of conditions concerning *Aseptic Methods* of Surgery. Here experiments in which the animal is kept alive after an operation to study its effects must be accompanied by the healing process, which is then painless, and if asepsis occurs there is absence of fever and inflammation; these latter would complicate the issue and render void the test.

It is therefore for two reasons that experimenters use both *anesthetics* and *antiseptics*, (1) to save an animal from suffering pain, and (2) to ensure the success of the experiment. . . .

To understand the meaning of vital processes it is

necessary to study the living organism, and to obtain this knowledge it is sometimes necessary to perform experiments on living animals. . . .

Repeated investigations here and elsewhere have been made, and charges made against experimenters have been carefully sifted, and in no single instance has a charge of cruelty been sustained. All horrifying cases of torture reported have, in the light of fair analysis and reason, been abundantly disproven. . . .

There are always two sides to every question. Vivisection is no exception—there are those who favor this form of research and there are those who oppose it. . . .

WHAT VIVISECTION HAS DONE FOR HUMAN BEINGS AND ANIMALS

The achievements of research:

Antiseptic method of surgery made possible.

The many wonders of modern surgery are largely the results of animal experimentation.

Surgery of the internal organs—stomach, spleen, liver, appendix, intestines, gall stones, kidneys and female organs is possible through the study of infection by experimentations on animals.

Modern and wonderful surgery of the brain made possible through experimentation.

The new surgery of the chest, including the heart, the lungs and large vessels, made practical through experimentation on animals.

Tetanus (lockjaw) has been almost entirely abolished. Prevention is possible only through such experimentation on the lower animals. This formerly

often occurred after operations and after accidents, especially pistol shot wounds and fireworks.

Reduced the death rate in open fractures (compound) from 66 in a hundred fatalities to less than one in a hundred.

Reduced the death rate in major female operations from 66 in a hundred to from 2 to 3 in a hundred.

Made the death rate in operations for rupture, amputation, and removal of tumors a negligible factor.

Abolished yellow fever—a wonderful triumph—and through its sanitary effect on engineering problems, made possible the Panama Canal. In this instance human volunteers had to be used, and one, Dr. Lazaar, sacrificed his life.

Diminished materially the ravages of malaria.

Reduced the incidence of rabies (hydrophobia).

Devised a method of direct transfusion of blood, which has saved many precious lives.

Cut the death rate of diphtheria. All over the world—in European and American cities the death rate has been made to fall from 79.9 per 100,000 population before antitoxin to 19 per 100,000 (1894 before—1905 after). The rate is less than one-quarter its former rate.

Reduced the mortality of epidemic cerebro-spinal meningitis from 65% to under 25%. Largely abolished post-operative hospital sepsis and gangrene, the foes of surgical undertaking. Formerly no matter how brilliant the operation or the operator, these fatal hospital diseases, sepsis and gangrene, were apt to appear and destroy the patient.

Made operation for goiter possible.

Aided in reducing the death rate of tuberculosis. Koch's discovery of the germ of consumption is the "*corner stone*" of all of our modern sanitary achievements.

Through animal experimentation the British Army abolished malta fever. Before research this destroyed in 1905, 1,300 men of the garrison; in 1909, after research, there was only one death.

Almost abolished puerperal (childbed) fever. Statistics before discovery, 5 to 57 deaths of mothers per 1,000, while to-day, after such discovery, the rate is 1 in 1,250 births.

Discovered Salvarsan, "606," which bids fair to protect many innocent wives and unborn children.

Typhoid vaccine largely abolished typhoid from armies of the world wherever used.

Through animal experimentation we are gradually lessening the ravages of cancer, and we hope we are approaching the discovery of the cause of cancer, poliomyelitis, and other children's diseases; then we hope the cure will quickly follow.

Sleeping sickness—methods of transmission, pathology and treatment.

Animal experimentation has enormously benefited animals by discovery of the causes, and in many cases the means of preventing, and in some a positive cure. Conspicuous among these are tuberculosis, rinderpest, anthrax, glanders, hog cholera, chicken cholera, lumpy jaw, and other diseases, some of which also attack mankind.

There is still much work to be done—in fact, we have just crossed the threshold of preventing and curing of the infectious diseases.

The work on malarial fever is advancing rapidly through mosquito study, and if we continue to progress as fast as we have in the past ten years, this dread disease will be annihilated.

The pain inflicted in all the laboratories of the world put together during an entire year is less than that which is every day inflicted in the slaughter of animals for food, and this, too, under the most modern cruelty of animal supervision; also, to that which farm laborers inflict in spaying animals by thousands in order that beef and mutton may be more tender or have a more pleasant flavor; to that inflicted by the hunter when the victims of his sport are imperfectly shot, die a lingering death, or wounded, are unable to water and feed themselves and so suffer interminably; to that which women allow in order to have fine feathers (ospreys) in their hats and furs upon their backs. . . .

CONCLUSION

Unnecessary and needless vivisection should be stopped.

Vivisection by inexperienced, unsophisticated and improper individuals should be stopped.

All vivisection should be accompanied by every possible precaution to prevent suffering of all kinds.

No one should needlessly restrict scientific bodies in pursuit of knowledge to aid the sick or suffering.

That experiments upon living animals have proved of the utmost service to mankind in the past and are indispensable to the future progress of medicine and public health.

While strongly deprecating the infliction of un-

necessary pain, it is our opinion—alike in the interest of man and of animals—that it is not desirable to restrict competent persons in the performance of animal experimentation.

We regret the widespread lack of information regarding the aims and achievements and the procedures of animal experimentation, and we deplore the persistent misrepresentation of these aims, purposes and achievements.

We protest against the frequent denunciation of self-sacrificing, high-minded men of science who are devoting their lives to the welfare of mankind in efforts to solve the complicated problems of living beings and their diseases.

It is our opinion that unrestricted performance by proper persons of scientific experiments upon living animals is essential to the maintenance and progress of medicine and its allied science, biology. . . .

VIVISECTION: CRUEL AND UNETHICAL

By Diana Belais

(President of the New York Anti-Vivisection Society and Editor of *The Open Door*, the National Anti-Vivisection and Animal Magazine, published at 456 Fourth Ave., New York City.)

That the trend of highest thought and conviction among the advanced public is toward humanitarianism is beyond question. The recognition of the altruistic principle, the realization that each of us is, in a large measure, his brother's keeper—all these concepts of noble conduct are now, as never before, having a noteworthy and practical influence upon men and women in their relation to each other.

The principle of altruism, then, being accepted as a fundamental, necessary part of our highest moral equipment, can we place any limit to its beneficence? Can, indeed, a principle be limited in any way? In the very nature of things is it not limitless in its action, embracing all? In short, is it not like two and two make four—something upon which we can rest fixed and immutable?

This being so, we at once include as members of our world the entire animal creation. Our principle is invariable, and we must follow it to its uttermost reachings; while because of the humbleness and help-

lessness of our charges we are under especial pressure to look zealously after their needs and protect them from trespass, because of the justice which *we* understand and must unequivocally give. (Although it is folly to assert that an animal does not understand unjust treatment!)

The cold assumption of vivisectors that animals have no rights within themselves is the heritage from a barbarism which these self-styled scientists accept with avidity as yielding them full privilege to torture animals under the equally barbaric plea of selfish utility to man.

Yet such utility does not exist. The claims of the vivisectors have become well known as spurious, but their lack of ethical development permits them to continue their misleading and false assertions as to the beneficial results from their "unspeakable calling."

The immoral argument that "the end justifies the means"—which is the argument, though often not expressed in so many words, upon which vivisection rests—has long been discarded by all those who value morality and ethics. Permit me to point out here that by using this code murder itself may be logically justified or condoned.

The question of animal rights is essentially an ethical one because we ourselves must be ethical in our relations to all things, at whatever cost, unless we are willing to array ourselves as being in the same class as the barbarian and his progeny—the vivisectors.

In the short space allotted to me I can only declare that the assertions made by vivisectionists as

to the diminution of smallpox, typhoid fever, diphtheria, etc., from vivisectional research and products are false. Send for our "COMPLETE FAILURE OF MEDICINE IN THE WORLD WAR," and learn from first hand statistics how these disingenuous vivisectors are deceiving the people as to what were the actual results of the inoculations continually forced upon those helpless soldiers. Read our "FOLLIES AND FAILURES" of the various inoculations, and remember that Herbert Spencer says: Once the integrity of the blood has been affected by vaccination (or inoculation) it is impossible to tell how far-reaching the effects might be; and that, although at the moment one might apparently escape evil results, years later other serious diseases may develop in consequence of the weakened and changed condition of the blood in which the introduced poison has all the time been latent.

One of the grossest and most sinful assertions is *that without vivisection no relief to humanity, no progress in medicine would be possible,* and yet experience is teeming with facts which show that many non-vivisectional schools of healing are reaping astonishing results in the relief and cure of mankind; results with which the vivisectional school cannot compare. Witness the appalling death rate under the latter treatment in the recent influenza scourge, and then realize that other schools had seven-eighths of one per cent mortality!

What can we think of the "good will" to humans that is professed by vivisectors, when, in the face of these undeniably beneficial results, they still ignore such results and proceed upon their cruel way tor-

turing animals and sacrificing human life to the vivisectional fetish?

Nothing is said by the vivisector of *Human* Vivisection. Even *he* has scarcely the hardihood to drag that skeleton from its secret place. Yet sorrowful instances, not isolated nor few, but by hundreds here in America, are embodied in our publications; *instances quoted from the vivisectors' own proud reports.* Animal vivisection does not obviate human vivisection. Far from it—it invites the human test.

A long list of flaunting frauds is fluttered before the eyes of the unthinking public as to what benefits they, the unthinking, have secured from this black art. From yellow fever, banished as far back as the Civil War, when our army cleaned up New Orleans —before, be it well understood, the germ theory had been promulgated—down to the present day popular scares, such as rabies, infantile paralysis, spinal meningitis, etc. (falsely said to have yielded to vivisectional research), which are relied upon by a politico-medical profession for advancement into pelf and power (the secret slogan of whom might well be that of the original Vanderbilt, "The public be damned"), nothing is left unfilched by the frantic shrieks of the rampant vivisectors.

It would be difficult to estimate the amount of vivisection required (!) to teach us the necessity of pure food. So palpable a deduction of simple common sense might well be exercised by the most stupid or sentimental of us without vivisectional lessons. Light and air were well known as specifics for tuberculosis long before the present-day fads of the germ theory and tuberculin were advanced. The assertion that

animals themselves benefit by their crucifixion through vivisection is met by exact parallel with the human. Cleanliness and care obviate bodily trouble. Carelessness and filth bring about bodily trouble. Space is prohibitive to dilate upon the many facts adverse to vivisection.

Vivisection has been fully demonstrated as useless, but we must strongly invoke the moral and the kindly instincts of man to reach our further goal. *A call for help comes to us with resounding force from these lowly ones, and this call is for protection. From what? Alas, from ourselves. Alas, that all have not yet realized the glorious, exalting principle of altruism toward the lower animals, so like us in their reason and in their instincts.*

The vivisecting room is, of all other places, that which most demands our undeviating attention, because vivisection can be nothing else than cruel and attended by atrocious suffering, no matter what experienced self-excusers may assert.

The plea of anesthesia is a negligible one, we know, because of the facts gained from the Medical Reports of physicians. Sir Lawson Tait, F.R.C.S., says: "There is no experimentation possible with anesthesia from which correct conclusions could be drawn. If conscious, their pain invalidates the deduction; if unconscious, then the experiments are admittedly worthless because the reaction cannot be the same as in a normal condition."

Dr. Hoggan, a pupil of Claude Bernard, the prince of vivisectors, says "that complete and conscious anesthesia of animals is seldom even attempted,"

and that "anesthetics are the greatest curse of vivisectible animals."

Dr. de Noé Walker testified before the English Royal Commission that "if it is supposed that animals under experimentation are thoroughly insensible, it is the greatest delusion that ever was."

Dr. Charles Bell Taylor, one of England's most eminent physicians and surgeons, said that "the only result from anesthetics in connection with animals was *to anesthetize the public regarding the great sufferings inflicted on them in vivisection.*"

Formerly vivisectors were quite bold in their admissions of cruelty, but latterly they have become more cautious. *It is owing to the increase of humane sentiment and conviction that the public attitude of the vivisector is entirely changed.* He cries: "Behold in me an impeccably humane man! I never commit cruelty, nor have I ever seen it in vivisection!"

This crawling to cover, this reversal alone, demonstrates forcibly how strong is the pressure of public opinion, and brings clearly before the mind the weight of the duty devolving upon each one of us to do our part in upholding and spreading the enlightened gospel of humanitarianism. Let this be encouragement to all. It means a very great deal!

That the cruelty and debasing effects of vivisection are more than the normal mind can readily conceive is well shown by Pirogoff's astounding, spontaneous confession: "One day, as I remember, this indifference to the agony of animals undergoing vivisection struck me with such force that, with my knife

still in my hand, I involuntarily exclaimed, turning to the comrade who was assisting me: 'Why, at this rate we might cut a man's throat!' "

What an ennobling profession—that of the vivisector! Must we continue to carry this scorpion upon our backs to our certain moral and physical destruction?

AUTHOR'S COMMENT

We have read with interest and appreciation the *pro* and *anti* vivisection articles herein presented. Nevertheless, years of study on the subject (despite the fact that we believed in vivisection when graduated from the medical college) have convinced us that vivisection is unnecessary. There are scientific and harmless methods by means of which the *causes* and *prevention* as well as *treatment* of human ailment may be ascertained. What are they? Listen:

There is only *one* way for every human being to obtain and maintain health; that is—to live *naturally!* We must live consistently with nature's laws —a thing we seldom do in our twentieth century mad struggle for existence. Only in proportion to our ability to *comply* with nature's laws, and to the extent that we actually *apply* her laws, can we maintain our health. Every other method or attempt on the part of man is artificial, temporary and passive at best, with perhaps few exceptions.

If the economic whip that lashes the majority of humanity into haste, prejudice, fear, intolerance and submission were removed, and if the people were taught the importance and beauty of simple, wholesome living, such subjects as vivisection, germ theories, vaccination and the like would not exist; or if they did, they would be studied from an academic standpoint by those who would have plenty of time

and be curious enough to know what humanity used to believe.

We simply mean this: Instead of consigning millions of healthy living animals to slow death by starvation or vicious experiment in the name of science and health, why not see to it that the human being has an opportunity to enjoy the *natural medicines* that nature has provided for him, such as air, sunshine, good food, clear water, rest and the like—the *lack* of which lowers resisting power and produces groups of abnormal manifestations or symptoms called disease? Why not see to it that they have sufficient exercise, bathe often, get plenty of rest and wholesome amusement? See to it that they understand the importance of wearing clothes that are conducive to *comfort*. See to it that they have a good elementary education and understand the subject of *sex* (the ignorance of which diseases and kills millions annually). See to it that they have an interest in human welfare and delight in doing something useful.

Further, why not teach the people the health-producing power of *love*, and encourage marriage on the basis of love only? Thus thousands who are hysterical and psychically (and physically) ill would be well. Teach them not to carry hatred or malice in their hearts against *any* person, no matter how he may have offended, injured or differed with them. Teach them to forgive and forget.

Why not teach them not to rush for gold—for they may be exhausted and diseased by the time they have "succeeded," or even die in the attempt? Teach them that our double standard of morality, and our

conventional, hypocritical manners of living are unhealthful and disease-producing.

If the people only knew the things they are kept from knowing and had favorable conditions to live under, there would be no use for vivisection.

Can vivisection prevent or cure *industrial* diseases? Can it avoid the "break downs," the premature aging and premature deaths of millions of workers as a result of chronic fatigue, or "over time?"

Can vivisection prevent or cure *child labor?* Will inoculating the blood with a serum affect this? Better first learn the *real cause* of disease, then remove it, instead of wasting time treating *effects.*

Surely every normal adult knows that *poverty* has never been conducive to health. It breeds fear, gloom, indigestion and disease. If poverty is a cause of disease, and we all admit that it is, then, how would vivisection—supposed to *prevent* illness, remove poverty—the greatest destroyer of human health and happiness?

Sincere as most vivisectionists are, they are not solving the health problem; they are dabbling not with *causes* of disease but with *effects.* They are miles from the real causes of disease, which are not due to having flirted with a pretty Germ,—but, are, in reality *social, economic, psychic and sexual in character.*

Probably millions of children grow up in ignorance of their procreative functions and abuse themselves sexually, which results in various mental and physical disturbances, called *this* and *that* disease. Sometimes the continuous violation of nature's laws in this direction leads to a depleted condition or physi-

cal bankruptcy we call tuberculosis. Would the inoculating of a serum or vaccine remove the *cause* or *cure* these victims of sex ignorance? How could vivisection help this condition?

As to the so-called "children's" diseases, such as scarlet fever, diphtheria, smallpox, measles, typhoid fever and the like (brought on largely by overfeeding, erroneous feeding, vaccination and not heeding nature's call), we find no evidence that vivisection has helped to stamp these out. *Sanitation and reduction of fear* have done as much as any two items could do to lessen these and similar so-called "contagious" diseases. Statistics on this matter lie as outrageously as possible and add nothing.

Among the many interesting clippings we have on file that prove how vivisection has "decreased" (?) diphtheria, scarlet fever and the like, we present only two which we have noticed in the *Bridgeport Telegram* recently. They illustrate and speak for themselves to those whose eyes can see, ears can hear and brain can think.

CASES OF DIPHTHERIA INCREASED FOR WEEK

"Hartford, Dec. 20, 1920.—The 161 new cases of diphtheria reported for last week, says the weekly report of the state department of health, represents the greatest prevalence of this disease during 1920. Scarlet fever remains high with 142 cases and is spreading over the state from the larger population centers. Whooping cough and measles have appeared west of the Connecticut river during the past week, but present no signs of becoming epidemic."

CONTAGIOUS DISEASES INCREASE ABOUT STATE

"Hartford, Jan. 4, 1921.—Diphtheria and scarlet fever are increasing in Connecticut, according to the weekly report issued by the state department of health. Diphtheria cases reported

last week numbered 114 as against 94 the week before, and scarlet fever cases were 145 as against 140 previous week. Two cases of trichinosis were reported in Waterbury. This is a disease due to eating under-cooked pork."

One step further: Let us say, for a moment, that vivisection has accomplished what it claims. Of what permanent value are these accomplishments? Most people know that we have *more* sickness to-day than ever before. If vivisection is such an effective thing and prevents illness at the unusual rate that some claim for it, why is it that *cancer* and *tuberculosis* are on an *increase* despite so much work in "prevention"?

During the "Spanish" influenza scare, what did vivisection accomplish? Nothing, as far as really preventing or curing is concerned. The serums that were used by some were ineffective or fatal in most cases. Physicians from all schools denounced serums. Some concluded that the only *real thing* that may give immunity from the "*flu*" was to wear a mask—as if we already did not wear one on our faces before. Here was a genuine chance for vivisection to show its right to continue its work and merit the coöperation of all truth-loving people. Did it do any good? Ask the undertakers. They know.

Some vivisectors tell the people that there are very few medical men who are opposed to vivisection. The author quotes only a few of the many names before him.

MEDICAL OPINIONS AGAINST VIVISECTION

Austin, A. Eugene, M.D., A.M., New York City.

I do not approve of animal vivisection. *No*

truths have been learned by animal experimentation that could not have been learned in other ways.

Bigger, Henry F., M.D., LL.D., Cleveland, Ohio.

Vivisection, unfortunately, is too frequently performed for no other purpose than to advertise the vivisector or for the gratification of the vivisector's curiosity—a motive not to be confounded with zeal for discovery. . . .

Blackwood, William R. D., M.D., Brig. Gen. Engineers, U. S. A., Philadelphia, Pa.

Vivisection is a crime, and its perpetrators and defenders neither hesitate any cruelty or mendacity in prosecuting their inhuman work. . . .

Bullard, J. Arthur, M.D., Wilkes-Barre, Pa.

. . . Notwithstanding the vivisector's monotonous overflow of words, he cannot prove to me—an active practitioner for forty-six years—that anything has been accomplished that could not have been done without the cruel, needless torture of thousands of dumb animals.

Caulkings, F., M.D., Hornell, N. Y.

I am opposed to vivisection. Dangerous vaccines are permitted to be used on innocent children and vile diseases are inoculated into them in charitable institutions. Inoculation is a menace to the country. Hog cholera and Foot and Mouth disease were introduced by vaccine virus, and vivisection is practiced to produce more vaccines.

Close, Stuart, M.D., Brooklyn, New York.

I am a confirmed anti-vivisectionist and have op-

posed this horrible perversion of science with all the means at my command for many years. I have also opposed vaccination and serum-vaccine therapy as fearlessly and vigorously as I have vivisection, believing them all to be wholly pernicious and a curse to the human race.

Cooper, William Colby, M.D., Cincinnati, Ohio.

I herewith submit that if the question is sifted to its dregs, it will be found that the whole of vivisection hangs on scientific vanity; hangs upon tentative or provisional scientific results, and upon the esthetics of physical agony! . . .

Dulles, Chas. W., M.D., Prof. Medical History, University of Pennsylvania.

From personal knowledge, I believe animal experimentation to be a crying evil, not only cruel to our fellow creatures, but also demoralizing in its effects upon those who inflict, and those who witness, the prolonged sufferings of animals subject to experimentation.

Fraser, J. B., M.D., Toronto, Canada.

From Hippocrates' time down to the present, the men who did most to advance medical science were those who paid particular attention to relieving distress in man; but among those honored names we find no vivisectionists, for the reason that the latter dissipate their energies in causing distress to animals.

Flower, A. H., M.D., Boston, Mass.

I am unalterably opposed to vivisection. The

moral damage to experimenters, to students, and to the society that tolerates vivisection far outweighs any possible benefits.

Hodge, Jn. W., M.D., Niagara Falls, N. Y.

I am strongly, wholly and unalterably opposed to the practice of vivisecting the sub-human groups of animals. I regard the practice as cruel, unmanly, useless, and criminal. . . .

Hutchinson, Jno., M.D., New York City.

My chief objection to vivisection is that its results are baneful to mankind. . . .

Laighton, Florence M., M.D., New York City.

I am entirely opposed to vivisection.

Simon, Carlton, M.D., New York City.

Why I am against vivisection. Ethically—I am against vivisection because no man has the right to give unnecessary pain to any living creature. To wantonly give pain is to develop a sense of brutality, blunting the finer sensibility in man's moral mind.

Spiritually—No man dare deny any living creature the right of soul life or the mission of divine purpose in the pursuit of happiness.

Medically—No experiment in vivisection has helped the human race, aside from personal aggrandizement, no matter how individual statistics may have endeavored to fallaciously prove.

Todd, F. H., M.D., Cleveland, Ohio.

I have never practiced vivisection, but have witnessed it to my horror and disgust. I am anxious

to help to put a stop to the useless, horrible practice of animal torture and cruelty practiced in medical colleges and large hospitals. My experience of forty years' study, observation, and clinical experience teaches me that nothing has been discovered of any practical value by animal experimentation, or that has prolonged life or saved suffering. The practice has rather steeled certain doctors to take desperate chances on humans, in order to satisfy their morbid curiosity.

CONCLUSION

The issue, vivisection, has been clearly set forth in the above articles by persons of distinction and experience. The reader is at liberty to chose his side in the controversy. It is such a vital matter that no reader should feel content without reaching a conclusion, no matter how many articles, pamphlets or books it may require reading or how much study—without haste or prejudice. It only remains for him to take his stand with the side of greatest human appeal, which promises the greatest good to the greatest number. This means progress in the health of the world.

WHERE YOU MAY GET MORE INFORMATION

I. If you desire literature or further information as to how vivisection *has* helped the human race by preventing illness and the like, write to:

Dr. Simon Flexner, care of The Rockefeller Institute for Medical Research, 66th Street and Avenue A, New York City.

Dr. F. A. Tondorf, Department of Physiology, Georgetown University, Medical School, Washington, D. C.

Dr. S. Dana Hubbard, Bureau of Public Health Education, 505 Pearl Street, New York, N. Y.

Dr. W. W. Keen, Philadelphia, Pa.

Dr. W. B. Cannon, Boston, Mass.

Dr. A. R. Craig, Secretary, American Medical Association, 535 N. Dearborn St., Chicago, Ill.

United States Department of Health, Washington, D. C.

Any *State* or *Local* Boards of Health.

II. If you desire literature or further information as to how vivisection has *not* helped the human race but caused illness and untimely death, write to any of the following:

Diana Belais, Editor *The Open Door*—the National Anti-Vivisection and Animal Magazine, and President of the N. Y. Anti-Vivisection League, 456 4th Ave., N. Y. City.

Living Tissue (Official organ, N. E. Anti-Vivisection Society), Tremont Temple, Boston, Mass.

The Abolitionist (The British Anti-Vivisection Magazine), 32 Charing Cross, S. W. I., London, England.

Dr. Joseph D. Harrigan (Jamaica), New York City.

Lora C. Little, Secretary, American Medical Liberty League, 59 E. Van Buren St., Chicago, Ill.

L. Loat, Secretary, The National Anti-Vaccination League of England, and Editor of *The Vaccination Inquirer*, 25 Denison House, Vauxhill Bridge Road, London, S. W. I.

American Anti-Vivisection Society, 22 So. 18th St., Philadelphia, Pa.

Mary C. Yarrow, "The Normandie," Chestnut and 36th Sts., Philadelphia, Pa.

Nellie C. Williams, 214 Riverside Drive, New York, N. Y.

Mrs. Rosamond Rae Wright, 5035 Stratford Road, Los Angeles, Cal.

Venia Kercheval, Secretary, California Anti-Vivisection Society, 1820 Upperton Ave., Los Angeles, Cal.

Mrs. Anna B. Clancy, Secretary, California Federation of Anti-Vivisection Societies, 641 O'Farrell St., San Francisco, Cal.

M. M. Getz, 45 Kearny St., San Francisco, Cal.

Attorney George Gelder, Easton Bldg., 428 13th St., Oakland, Cal.

THE VACCINATION PROBLEM

The vaccination issue is the most important and popular issue on health before the people in America to-day. Many physicians from all schools of medicine, who formerly believed in vaccination, are now opposed to it.

If any doubt that vaccination is a living issue at the present time we refer them to the recent elections in the States of California and Oregon, where the people participated in a referendum vote on the issue of *compulsory vaccination* and *other* health issues. It took, I believe, over *one hundred thousand signatures*, on the part of the people, in these two states, to officially place this issue before the voting citizens in the regular election. This fact is on record and surely proves at least, one thing,—that the subject of vaccination *is* an issue, and that doctors as well as laymen *differ* on the subject.

The *American Medical Liberty League* (59 E. Van Buren St., Chicago, Ill.), through its secretary, Lora C. Little, in her reports, through its official organ—*The Truth Teller* (published at Battle Creek, Mich.)—informs us of new medical liberty leagues being formed throughout the country. If those who organize and join these leagues did not consider vaccination *an issue*—especially *compulsory* vaccination, why should new leagues be formed? And why should they be on an increase?

Most of you have read in the daily press of *protests* on the part of parents to their local Boards of Health, who tried to make vaccination *compulsory* before admitting children to school. Do not these local protests prove that some parents consider compulsory medication a violation of their constitutional rights? Does this not prove that vaccination *is* an issue?

In many states, including Massachusetts, Connecticut and New York, of which we have personal knowledge, many anti-vaccination and anti-vivisection societies send representatives to the legislative committees every year asking for the repeal of the compulsory clauses in the vaccination laws and protesting against other medical abuses. You will find before these legislative committees, attorneys, ministers, physicians and laymen of a liberal and progressive nature, either representing organizations or protesting in an individual capacity. All these prove *conclusively* that vaccination *is* an issue.

The two following articles will present to the readers of "Timely Truths on Human Health," a brief outline of the subject—reserving Author's Comments for the last.

VACCINATION UPHELD

(From a lecture, written by Dr. F. E. Stewart and Dr. W. F. Elgin, of the H. K. Mulford Co., Philadelphia, Pa.)

Smallpox, or variola, is an acute, highly infectious and contagious disease occurring in all countries, and characterized by the sudden onset of a high fever, followed in about three days by an eruption of the skin, which passes through the successive stages of papule, vesicle, desiccation, and desquamation.

Smallpox is one of the most fatal and hideous of diseases. Those who recover are usually disfigured for life. Total blindness is not an uncommon result.

History: Smallpox prevailed in China many centuries before the Christian era. It was first accurately described by Rhazes, an Arabian physician, 1,000 years before Christ. The Great Plague, described by Galen (A. D. 130-200), and the Black Death, which prevailed in epidemic form in Europe, were doubtless smallpox, "Pestilence" and "Plague" being used synonymously with smallpox and other eruptive fevers. Smallpox prevailed in the sixth century and again during the Crusades. In Hindoostan, according to the tradition of the Brahmins, it is of remote antiquity. Several goddesses worshiped in India were supposed to preside over smallpox and to determine the fate of those afflicted with the disease.

Among the ancient Romans the first authentic description of the disease was given by Philo, a Jewish author who lived during the time of the Roman Emperor Claudius Cæsar (40 A. D.).

In 570 A. D. Marius, of Avenches, Bishop of Lausanne, referred to a condition as *variola*, this being the first mention of the word in literature.

Smallpox was known in Arabia in 569 A. D., and was found existing in Japan when Europeans first visited that country. The Code Annals of Ulster reports that in 679 a grievous leprosy prevailed in Ireland, which is supposed to have been smallpox.

The Harlein collection of the British museum contains an Anglo-Saxon manuscript written in the tenth century, one of the pious exhortations of which is as follows:

"In the name of Father, of the Son and the Holy Ghost, Amen. May our Saviour help us, Oh Lord of Heaven! Hear the prayers of Thy man-servants and of Thy maid-servants. Oh Lord Jesus Christ, I beseech thousands of angels that they may save and defend me from the fire and power of smallpox and protect me from the danger of death. Oh Christ Jesus, incline Your ears to us."

This affecting prayer shows strongly the terror which the smallpox inspired at that time.

Smallpox is believed to have been introduced into America by the Spaniards, it having first appeared in Mexico in 1518. It broke out in Massachusetts in 1633.

Cause of Smallpox. The cause of smallpox is unknown. The disease is probably due to a living germ of vegetable or animal origin—i. e., bacterial or pro-

tozoan. Streptococci, though often found in the smallpox vesicles and pustules, and often contributing materially to the production of a fatal outcome, may be regarded as secondary in significance.

Mortality. Before the introduction of vaccination, smallpox was the greatest scourge that ever affected the human race. In 1786 Junker wrote that 400,000 lives were lost yearly by smallpox. In 1803 King Frederick William, of Prussia, in an edict, stated that 40,000 died annually in Prussia of the disease. From 1761 to 1800, in the city of London, there was an average death rate of 2,037 persons yearly from smallpox. From 1700 to 1800 it is estimated that an average of 600,000 persons died yearly from smallpox throughout the world.

The general fatality of smallpox among those who have never been vaccinated is greatest in children between one and ten years of age, reaching as high as 58 per cent. Before Jenner's discovery, it is estimated that one-tenth of all the children born died of smallpox. Between the ages of fifteen and twenty the fewest deaths occur. After the fortieth year, and as old age approaches, the fatality is again high.

Prognosis. In general the prognosis is worse in women than in men, on account of the complications of child-birth and the conditions which favor the hemorrhagic variety of the disease. On the other hand, among men, irregular habits and the excessive use of alcohol increase the death rate. Among dissolute persons of both sexes the prognosis is very grave. Badly nourished and overworked people, confined to dark and ill-ventilated rooms, and those

depressed by scrofula, syphilis, tuberculosis, or those convalescing from fevers or other diseases, readily succumb to it.

The death rate is usually higher at the commencement of an epidemic than at its close, because those most susceptible or wholly unprotected are usually first attacked.

Varieties. The simplest form is known as the *discrete* variety. If the pustules be so close to each other that they join, the case is *confluent.* The variety with bloody infiltration is called *hemorrhagic,* or *black smallpox.* In the form of black smallpox practically all patients die. In the confluent form, more than three-fourths die. In the semi-confluent form, about one-half die, and in the discrete, one-fourth to one-twentieth.

Ancient Method of Obtaining Immunity by Inoculation. Centuries before the Christian era the Chinese observed the immunity against a second attack enjoyed by those who had survived the smallpox. Accordingly, they attempted to obtain immunity by a peculiar method known as "sowing the smallpox." It was generally performed by planting some of the crusts from smallpox patients in the nostril. Smallpox communicated in this manner almost invariably resulted in a mild attack, recovery from which left the patient immune. The Brahmins had also discovered that the inoculation of smallpox produced the true disease in a mild form, so that the malady proved fatal only to one in one hundred, or, under the most favorable circumstances, one in three hundred. Lady Mary Wortley Montagu, wife of the British Ambassador to Turkey, became acquainted

with the method and introduced the idea of inoculation for the purpose of protection into England in 1718. The practice was extensively employed in England in 1718, and on the continent, but after a time it became evident that while immunity was secured in the inoculated person, the disease thus induced could be spread as readily as by the natural form, and the practice was abandoned. It is thought that the severity of some of the widespread and fatal epidemics was greatly increased by this procedure.

Vaccination—Jenner's Discovery—Artificial Immunity against Smallpox. The first really scientific step in the production of artificial immunity against smallpox may be accredited to Edward Jenner, an English physician (born in 1749 and died in 1823), who, in 1789, announced that immunity to smallpox could be produced by vaccination.

The peasantry in various parts of the world, particularly in England, believed that sores on the hands of persons who milked cows affected with cowpox conferred immunity from the disease.

Jenner, while a student, learned of the traditions on this subject and mentioned them to his preceptor, John Hunter. He settled the question in 1796 when he vaccinated a boy, James Phipps, with matter from a kine-pock on the hand of a dairy-maid, Sarah Nelnes, and on July first introduced into this boy infectious matter from a smallpox pustule without effect. Two years later—in June, 1798—he published "An Inquiry Into the Causes and Effects of the Variolæ Vaccine," and within a year or two vaccination became general over the continent of Europe.

In May, 1800, vaccination was adopted in the English Army, and shortly afterward in the Navy; and in July of the same year a declaration was signed by many of the medical men in London expressing their confidence in its practice.

Vaccination was introduced in the United States July 8, 1811. Benjamin Waterhouse, "Professor of Physick," Harvard University, vaccinated his own children, and John Coxe, of Philadelphia, vaccinated his oldest child about the same time, and then tested the experiment by exposing him to the influence of smallpox. The reliance on the protective power of vaccination in America was strengthened materially by this bold act. President Jefferson was instrumental in introducing vaccination in the southern United States.

Immense Benefit Conferred upon Humanity by Vaccination. The immense benefit conferred upon humanity by vaccination may be estimated from the following facts and statistics:

In the early part of the nineteenth century, when smallpox—which at first assumed epidemic form in Europe about 1700—had become a veritable scourge, it suddenly began to decline, and this decline continued for decade after decade until the disease lost its terrors, and the great majority of physicians had never so much as even seen a case. How was this almost miraculous change to be accounted for? There can be but one reply to this query: the introduction of protective vaccination by Jenner and its general adoption has controlled and practically eradicated smallpox.

A thorough and continuous practice of vaccination

would blot out smallpox from the face of the earth.

Numerous statistics prove the value of vaccination. . . .

. . . In the report of the Municipal Hospital of Philadelphia for 1899, Dr. W. M. Welch gives the average mortality previous to the epidemic of 1894-95 as 58.38 per cent, while during the epidemic of 1871-72 the death rate in unvaccinated cases reached the appalling figure of 64.41 per cent. Imagine one of our large cities, filled with unvaccinated persons, subject to an epidemic of smallpox with a mortality of 64.41 per cent. Such an epidemic would carry off more than half of the entire population.

Which is to be preferred: smallpox, with its horrors, or a sore arm resulting from vaccination? Consider the facts; observe the horrible nature of the disease, remember the terrible mortality and the disfigurement of the survivors, and then let every person answer this question for himself.

Concerning the so-called danger of transmitting other diseases by vaccination. This possibility did exist before the introduction of modern methods of producing vaccine. In early times the vaccine virus was passed from one person to another, the serum from the vaccine lesion of vaccinated persons being employed to vaccinate others. If the serum was taken from a person suffering from a constitutional disease, there was, of course, danger of transmitting the disease to others. This has been entirely obviated by the use of bovine virus and modern safeguards thrown around its preparation.

Thanks to the work of Pasteur in discovering the microbic causes of disease and the nature of disease

germ, attention was called to the danger of contamination from this source, and the production of vaccine virus was placed on a scientific basis and is now under government supervision. Vaccine is produced in modern vaccine laboratories, therefore is insured against any contamination by all the tests known to science. . . .

Re-vaccination. Jenner at first thought that vaccination insured immunity for life, but as early as 1805 it was observed that epidemics of smallpox occurred in communities supposed to be protected by vaccination. During the first quarter of the nineteenth century these epidemics increased in number and severity, which led to the conclusion that the protective influence of vaccination gradually became less, and in some, at least, wholly disappeared. It was further observed that, in many, exposure to smallpox resulted in varioloid, at first supposed to be a distinct disease, but afterward discovered to be a mild form of smallpox. To Husson and Bosquet has been given the credit of advising re-vaccination, which was first practiced on a large scale in Prussia. Since that time the smallpox mortality in that country has been reduced to proportions quite insignificant compared with any previous epoch. . . .

Finally, in considering the benefit of vaccination it must not be forgotten that re-vaccination is quite as important as the first vaccination, which confers immunity only from seven to ten years. A child should, therefore, be vaccinated soon after birth, or at least before the eighteenth month, and the process should be repeated every seven years thereafter.

Special Points to Remember.—1. Rigid cleanliness

should be exercised in preparing the patient for vaccination and in the after-care of the vaccinated area.

2. Deep scarifications should be avoided, no blood should be drawn.

3. Vaccination should preferably be performed in the winter or spring, to get the best results, as the vaccine, being a living virus, is easily destroyed by summer temperature.

4. Careful instructions should be given the patient as to the subsequent care of the vaccination and cleansing or treatment of the vaccinated area is necessary. The patient should be instructed to return in a day or two to the physician for examination.

5. It should be remembered that vaccination is a surgical procedure and a suppurative wound, unless properly looked after, is an excellent culture field for the growth of a foreign bacilli.

6. Glycerinated virus is the only form of vaccine prepared at the present time. Only fresh vaccine should be employed, and the physician should be sure that the virus has been carried in a refrigerator and not exposed to the heat.

7. Glycerinated vaccine is milder and slightly slower in action than other forms—the vesicle usually forming on the eighth day in primary vaccination, possibly as late as the tenth day. The formation of the typical vesicles should be considered as proof of successful vaccination.

VACCINATION CONDEMNED

By Charles M. Higgins

(Extracts from the recent book, "Horrors of Vaccination"—a plea to the President to abolish compulsory vaccination in the Army and Navy.)

COMPULSORY VACCINATION THE GREAT MEDICAL MALPRACTICE OF TO-DAY WHICH KILLS MANY WHERE BLEEDING KILLED ONE

Now the most barbarous and dangerous medical practice of to-day is the gross evil of compulsory vaccination, which is doubtless the greatest violation of common sense, medical propriety and the unalienable natural rights of the individual guaranteed in our basic American Charters, that any dogmatic, presumptuous profession or class of men has ever been guilty of. And it is to this serious violation of American principle forced on our soldiers and sailors by medical dogmatism that I now wish to ask your most careful attention as one having the supreme commanding and pardoning power in Army and Navy, with the earnest prayer that in the exercise of that exalted wisdom and power possessed by your great American Office and Personality, which has now made itself felt around the whole world, that this medical barbarism of compulsory disease may be

abolished in our Army and Navy, and that all men condemned by Court Martial for refusing the infliction on their bodies of compulsory disease shall be fully pardoned and restored to their proper and honorable status as loyal American soldiers and sailors.

VACCINATION IS BLOOD POISONING WITH INFLICTED DISEASE AND IS OFTEN MORE FATAL THAN NATURAL DISEASE

For former medical mistakes there is now substituted the modern medical mistake of compulsory bovine and serum vaccinations of various kinds and multiple repetitions which are in many instances as dangerous to human health and life as the former prohibited malpractices, or more so, and will, doubtless, in due time, be publicly condemned and abandoned as equal mistakes, like their predecessors.

Indeed, this modern vaccine system of medicine is so violent and dangerous that it has been frequently known to kill in from ten to fifteen minutes after injection of the serum by what is known as "serum sickness," which is a kind of rapid blood and nerve poisoning affecting vital nerve centers, to which some persons are very susceptible.[1] This is, of course, a more violent, rapid and fatal action than occurs in the most virulent and deadly natural diseases and is comparable only to a stroke of lightning or shock of electricity or to the violent action of the most virulent chemical, mineral, animal, or vegetable poisons known in toxicology. In other fatal cases,

[1] See U. S. Hygienic Laboratory Bulletin 91, December, 1913. Also "Preventive Medicine," by Dr. Rosenau, 1914, page 410.

where the poisoning action is slower, death finally occurs from lockjaw, paralysis, meningitis, or pneumonia, which are frequent results of vaccination. And these fatal results of vaccination are commonly denied and concealed in death certificates by recording the terminal disease of lockjaw, paralysis, meningitis, or pneumonia only as the sole and original cause of death without any record of the inflicted disease—vaccination—as the primary or contributory cause of the death. This evil practice is, of course, a gross falsification of our vital statistics, and is now a frequent offense by some of our vaccinating doctors, as I can legally prove by documentary evidence when required.

In some death certificates, however, the vaccination is more or less clearly and honestly acknowledged as the cause of death, direct or indirect. I have now in hand a recent New York death certificate which records the death of a little child one year old in three days after vaccination, from vaccinal septicemia, or blood poisoning, due to the vaccinal infection.

EVERY VACCINATION SORE IS AN INFECTING ABSCESS AND EVERY ACT OF VACCINATION IS A BLOOD INFECTION CAPABLE OF CAUSING SERIOUS DISEASE OR DEATH AT ANY TIME

Every vaccination sore is simply a septicemic abscess and focus of infection, more or less dangerous, and is possibly capable of infecting the whole system at any time with fatal effect; and, furthermore, every act of ordinary cowpox vaccination is, of course, an act of septicemic infection or blood poison-

ing, per se, and pure and simple, and frequently kills in this way in the longer or shorter time of a few days, which is, of course, quicker than the worst forms of natural smallpox ever kill.

As convincing evidence on this head, I have a Brooklyn death certificate showing the death of a woman hospital nurse six months after vaccination, from multiple abscesses which broke out all over the body in successive crops and continued for six months notwithstanding the most skillful medical efforts for cure, and finally resulted in death from general vaccinal septicemia.

I have an English certificate showing the death of a man from the same cause, multiple abscesses, resulting from vaccination and continuing for seven years, and finally ending in death.

I have also another English certificate which shows the death of a little infant from vaccinal septicemia in thirty-four hours after vaccination! Of course the worst form of smallpox was never known to kill in such short time.

These shocking facts thus clearly show that an inflicted disease may be far worse and more fatal than a naturally acquired disease, and that vaccination may kill with surprising swiftness in a few days, hours, or minutes, quicker than the most fatal natural diseases or the most virulent poisons, or may continue a most horrible blood infection with internal or external eruptions through an agony of months or years and finally end in death from this infection.

I have also some recent American death certificates which show the deaths of five little children of primary school age, all killed in one week in Septem-

ber, 1915, from vaccination resulting in lockjaw and septicemia. I have now in hand a memorial pamphlet written by an aggrieved father, a very intelligent man, an editor and manufacturer, Mr. James A. Loyster, of Cazenovia, New York, which shows the death of his own son and about thirty other children from vaccination in New York State in 1914. This child slaughter was the result of a general vaccination raid made upon the school children of the state in that year; and this pamphlet gives convincing proof that about thirty, and probable proof that about twice that number were killed by vaccine infection, *while only three persons died from smallpox in the whole state for the same year!*

COMPULSORY DISEASE AS A CONDITION FOR PUBLIC SCHOOLING OR FOR SERVICE IN ARMY AND NAVY IS MEDICALLY BARBAROUS AND LEGALLY UNCONSTITUTIONAL AND SHOULD BE ABOLISHED

These deadly vaccinations above cited were almost all performed on school children to satisfy an evil law which has been originated and sustained by a powerful but mistaken part or sect of the medical profession—the vaccine sect—by which law vaccination is forced upon children of school age as a condition for admission to school, thus making the infliction of a dangerous disease on the tender body of the child a condition for the exercise of that most essential, unquestionable, and inalienable right of the child to *Education!* Such invasion of natural right to life, health, and education is surely the clearest violation of those great American principles of in-

herent natural rights so distinctly set forth in the Declaration and Constitution which all Governments must respect and defend.

ABOLISH ALL COMPULSORY VACCINATION IN ARMY AND NAVY AND APPOINT DOCTORS OF VARIOUS SCHOOLS ON ALL MEDICAL AND HEALTH BOARDS

In the same way this dogmatic and dominant part or sect of the medical profession, organized in powerful medical societies and now controlling important public offices, has forced the dangerous practice of general compulsory vaccination upon our Army and Navy, and this practice is, I believe, largely the result of having only one school of medicine—the vaccine school—represented on our Medical Boards and in our Departments of Health and Vital Statistics. To thus have only one school of medicine represented on our Medical Boards of Army and Navy is, I submit, as great a mistake, as unjust, absurd, and un-American as it would be to have only one school of Religion represented in our Army and Navy chaplains. For, surely, medical tolerance and freedom is as important for national welfare as religious tolerance and freedom. And to this particular point, Mr. President, I would, therefore, now like to ask your first and most careful attention, with the suggestion and hope that, as supreme commander of both arms of the service, you will not only find it just, wise and proper to abolish all compulsory vaccination in Army and Navy and leave vaccination entirely voluntary with each man, as it now is in the English Army, but that you will also abolish all arrogant monopoly or control of medical practice in

Army and Navy by any one school of medicine, and will adopt the reform in the future of having various schools of medicine properly and justly represented on our Medical Boards, from which reform, I believe, a great improvement in medical practice and in public right, health and comfort is sure to result.

DEATHS FROM VACCINATION GREATER THAN DEATHS FROM SMALLPOX. SHOCKING DENIAL AND CONCEALMENT OF VACCINATION DEATHS BY OUR DEPARTMENTS OF HEALTH AND VITAL STATISTICS

Data from Reports of Registrar General of England, showing deaths from vaccination compared with deaths from smallpox:

Year	*Total Deaths from Smallpox*	*Total Deaths from Vaccination*
1906	21	29
1907	10	12
1908	12	13

Total deaths from smallpox for six years, 1905 to 1910....199
Total deaths from vaccination for six years, 1905 to 1910.. 99
Deaths from smallpox in said period under 5 years old... 26
Deaths from vaccination in said period under 5 years old.. 98

From these remarkable figures we will see that for the six years from 1905 to 1910, in England and Wales, the total deaths from vaccination for all ages were about half the total deaths from smallpox, but that in the same period the total deaths from vaccination, in the child ages of five years and under, were nearly *four times* the deaths from smallpox in the same age group!

The report of the English Registrar General for

the three years, 1911, 1912 and 1913, tells a similar story of vaccinal fatality, as follows:

Total deaths from smallpox for all ages for three years, 1911 to 1913 42
Total deaths from vaccination for all ages in said three years 31
Deaths from smallpox in children under 5 years..... 8
Deaths from vaccination in children of same age..... 30

Here it will be noted that for the three years stated the total deaths from vaccination are three-quarters of the total deaths from smallpox, whereas the deaths from vaccination in children five years old and under are over three times more than the deaths from smallpox in the same age group! I have not examined the reports later than 1913, having confined myself to the decade to which Dr. Millard refers.

This awful record of fatal vaccinations thus speaks very clearly for itself and forms a strong indictment of the whole barbarous and dangerous system of compulsory vaccination, whether for child or adult, and must condemn the evil practice in every rational mind.

It can be further proved that an equal or greater fatality from vaccination, as compared with the English records, occurs in our own country and in our own state of New York, but these yearly reports by our vaccinating doctors and health officials of city and State, as I have repeatedly and publicly charged, and have challenged these doctors and officials to deny or disprove this charge if they can, and I now hereby renew this public challenge on this most serious point.

For further data on this point, see my pamphlets, "The Crime against the School Child," "Open Your Eyes," "Serious Warning" and "Vaccination and Lockjaw."

AUTHOR'S COMMENT

After having read and studied many books (*pro* and *con*) on the subject of vaccination; after having listened to views held by physicians of "both camps" on the controversy; after having *practiced* the operation of vaccination a number of years; and after giving the subject reasonable (unbiased) consideration and reflection, we have finally concluded that:

I. Vaccination is *useless* as a preventive of smallpox or *any other* filth manifestation; for smallpox is a filth expression or filth illness which follows closely upon flagrant violation of the laws of hygiene and sanitation. Give the human race clean water, unadulterated food, sanitary and modern lavatories, bathtubs as well as good sewage, and you may say "good-by" to smallpox, typhoid fever and the other fellows that usually "chum" together.

The occurrence of great epidemics or national "*scares*" has coincided with periods of sanitary *neglect*, accompanied by fatigue, anxiety and *fear;* no person is susceptible to smallpox manifestations or any other filth disease so long as he is in a state of health.

Every human being can be protected from smallpox or *any* illness if he has sufficient air, sunshine, wholesome work, good food and interest in life; these

give genuine immunity. (Read *Author's Comment*, under heading of *The Vivisection Problem.*)

II. Vaccination is a wonderfully good thing—to keep doctors treating the *after effects.*

Instead of protecting its victims from smallpox it actually renders them more susceptible to it by contaminating the blood and diminishing natural resistance. Many healthy children have died from the effects of vaccination. (We have a number of lists, of names, before us.)

III. *Compulsory* vaccination ranks with human slavery and religious persecution and is one of the most flagrant infringements of the rights of the human race. If people are forced to submit to *compulsory* vaccination for smallpox much longer there is reason to believe that they will soon be vaccinated —by force, of course—for typhoid fever, diphtheria, pneumonia, measles, hay fever, cancer, tuberculosis, yellow jaundice and the like. We may soon be "blessed" with a serum or vaccine for *every* disease.

IV. It is unnecessary to actually set up one disease in a healthy organism (as vaccination does) with an idea in view of avoiding another. Such a procedure is an appalling violation of the basic principles of hygiene and sanitation.

The community that has sanitary surroundings, a pure water supply, wholesome food, good health and freedom from the blood poisoning incident to vaccination, need have no more fear of smallpox than of an itching nose.

When these and other simple facts consistent with

nature's laws are fully realized by the people and the three schools of medicine in the United States (called the medical profession), it will not take long to put an end to the crime of *compulsory* vaccination, which disgraces the statute books of our country.

A FEW STATEMENTS BY OTHERS

Vaccination is the most outrageous insult that can be offered to any pure-minded man or woman. It is the boldest and most impious attempt to mar the works of God that has been attempted for ages. They have no more right to poison your little ones by vaccination than they have to cut your throat.—E. M. Ripley, M.D., Unionville, Conn.

Because a stupid fellow conceived the idea that health could be maintained by instilling a pus extracted from a filthy animal into the blood stream of a human being, small minds continue to reflect the absurdity. As well argue that the purity of a stream of water can be maintained by polluting it with the elements of decomposition, or if impure, that it may be rendered wholesome by dumping into it the sewage of a city. Compulsory medication of any description is abhorrent to men of sound mind and independent thought.—Thos. Mulligan, M.D., New Britain, Conn.

The violation of the body of a healthy person and the defilement of the pure blood of a child or adult by pus inoculation, as in vaccination, and without their consent is assault and a crime in the nature of rape. A law compelling such a procedure is unjust and opposed to the dictates of common sense.—Major Thos. Boudren, Bridgeport, Conn.

I oppose vaccination because forty years of practice have convinced me that vaccination does not afford the least protection or mitigation from smallpox, and because I believe its pretext is bad logic, wicked in morals, and futile in practice.—ALEXANDER M. Ross, M.D., F.R.C.

Compulsory vaccination is a crime and an outrage. —W. S. ENSIGN, Editor, *The Truth Teller,* Battle Creek, Mich.

To inflict a bodily wound on any person, forcibly or against the will of that person, and to inoculate into that wound an infectious disease which may infect the whole body and destroy health or life, as occurs in the act of vaccination, is an illegal and criminal act in fact and law under the simplest fundamental principles of common law, statute law, and constitutional guarantees; and any law allowing or authorizing such an act is, of course, absolutely invalid.—CHAS. M. HIGGINS, formerly Treas. Anti-Vaccination League of America and author of "Horrors of Vaccination," 271 9th St., Brooklyn, N. Y.

It matters but little to the dead children or their stricken parents whether the germs of disease were introduced with the vaccine virus, or subsequently through the open vaccine wounds. The awful fact remains that had none of them been vaccinated all would probably have remained alive and in good health.—JAS. A. LOYSTER, Cazenovia, N. Y., in "Vaccination Results in New York State in 1914." (Wonderful collection of photographs and biographies of many children who *died* from the effects of vaccination.)

Vaccination is so dreadfully risky hundreds of

physicians and surgeons have vehemently denounced it, and hundreds of thousands of intelligent and devoted parents have refused it, preferring to suffer fines rather than defile their children's blood and rob them of their birthright of sweetness and purity.—*Columbus Medical Journal.*

Vaccination has increased the agony and illness in this world. Good health alone gives immunity.—Elmer Lee, M.D., Editor, *Health Culture*, practicing physician 45 years, New York City.

Smallpox is simply a filth disease; it comes only to those whose internal organism is reeking with the poisons bred by an inactive alimentary canal, want of exercise, and the neglect of external cleanliness. Vaccination does not give protection.—Bernarr Macfadden, Editor, *Physical Culture.*

There can be no doubt that ere long a system of compulsory notification and isolation will replace vaccination. Indeed, I maintain that where isolation and vaccination have been carried out in the face of an epidemic it is isolation which has been instrumental in staying the outbreak, though vaccination has received the credit.—Edgar March Crookshank, M.D., J.P., Professor of Comparative Pathology and Bacteriology in King's College, London.

I have very little faith in vaccination even as modifying the disease, and none at all as a protective in virulent epidemics. Personally, I contracted smallpox less than six months after a most severe revaccination.—R. Hall Blakewell, M.D., M.R.C.S.

Facts have convinced me that vaccination is a great mistake and that compulsion is one of the most fearful outrages that selfishness and cowardice

has ever devised.—Rev. C. H. Reimers, State Sec'y, Conn. Anti-Compulsory Vaccination League, Meriden, Conn.

Priestly despotism is bad, but medical despotism is intolerable.—Rt. Hon. J. W. Henley.

In my family I prefer smallpox to vaccination.—L. E. Cross, M.D., Stockton, Cal.

Over twenty years of actual experience and study makes me an anti-vaccinationist.—J. E. Mann, M.D., Louisville, Ky.

It is unfortunate that children, especially school children, are singled out for attack by the vaccinationists, and that laws are so framed as to make it compulsory for parents to submit their children to the unavoidable risks always accompanying vaccination, under penalty of having their children expelled from the public school and denied the privilege of an education. Especially deplorable is it when circumstances provide an opportunity to enforce vaccination on children at the age of puberty, that period of great and momentous changes in the constitution and life of the child when, of all times, the child is rendered exceptionally susceptible and should not be so perniciously interfered with.—L. W. Anderson, in "The Great White Plague," Waterbury, Conn.

Many more such statements can be given, but the aforementioned will be sufficient for the unbiased reader, that experience and reason conclude against vaccination.

MORE PROMINENT NAMES

The following few men are among the thousands on record as opposed to vaccination:

J. W. Hodge, M.D., Niagara Falls, N. Y.; E. F. Bowers, M.D., New Haven, Conn.; Wm. Job Collins, M.D., F.R.S.C. (Public Vaccinator, London, who gave up his position as a result of his conviction against vaccination); George Cordwent, M.D. (Public Vaccinator 20 years, West Somerset, England); Dr. Geo. Pyburn, Sacramento, Cal.; M. R. Chamberlain, M.D., Santa Cruz, Cal.; C. M. Morford, M.D., Toledo, Iowa; S. Worcester, M.D., Portland, Me.; W. F. Hinckley, M.D., Waterbury, Conn.; J. H. Tilden, M.D., Denver, Col.; Dr. William B. Clark, Indianapolis, Ind.; Isaac Lockhart Peebles, M.D., Meriden, Miss.; Dr. A. A. Erz, San Francisco, Cal.; Dr. I. J. Eales, Chicago, Ill.; J. W. Griggs, Minneapolis, Ind.; George Starr White, M.D., Ph.D., Los Angeles, Cal.; Frank D. Blue, New Orleans, La.; Eli G. Jones, M.D., Buffalo, N. Y.; Prof. A. Levanzin, Seattle, Wash.; Dr. Richard Minthorne, Newark, N. J.; Joseph D. Harrigan, M.D., New York, N. Y.; Charles E. Page, M.D., Boston, Mass.

A FEW INTERESTING PRESS REPORTS

The following four clippings during 1918 prove how dangerous vaccines are:

1. SMALLPOX RAGING AT KRUPP PLANT

London, June 10, 1918.—A dispatch to the *Times* from The Hague quotes a neutral who has arrived there from Germany as saying that an epidemic of Black Smallpox is raging among the workmen of the Krupp Plant in Essen, with four or five fatal cases occurring daily. Vaccination of every one is compelled.

The outbreak, the dispatch adds, is attributed to *underfeeding* and *unsanitary conditions.* (And yet, the pro-vaccinationists would have the public believe that the elimination of filth and sufficient nutrition would *not prevent* smallpox.—Author.)

2. FEAR VACCINE VIRUS MAY BE INFECTED

St. Paul, Minn., Oct. 30, 1918.—Health Officers were asked to-day by manufacturers of vaccine sent here for use to return it, as in certain instances it had been found to contain tetanus germs. The vaccine was accordingly shipped to Washington where it will be analyzed.

How the supposed tetanus germs got in the vaccine is unexplained, though it was suggested that enemies of the country might be responsible. (Anti-vaccinationists the world over have known and taught that vaccine virus *contains* tetanus germs—and that *vaccination itself* was one of the greatest enemies of the country.—Author.)

3. GERMS OF TETANUS ARE FOUND IN VACCINE

Two Deaths in Memphis and Vaccination Is Forbidden—
Alien Enemies Are Suspected

Memphis, Tenn., Oct. 31, 1918.—In two out of five deaths from tetanus in Memphis within a short time, the infection of

tetanus has been positively traced to vaccination for smallpox.

The facts have been reported to Washington and the Public Health Service and the Secret Service have already begun an investigation. The Health Department has notified all physicians in Shelby County not to vaccinate for smallpox.

It is suggested that enemies of the country might be responsible. (This press-clipping *alone* proves that people have died as a result of vaccination, yet some physicians will not admit it.—Author.)

4. NO EVIDENCE OF WILLFUL INFECTION OF SMALLPOX VACCINE

(Special to the *World*)

Washington, Oct. 31, 1918.—The Public Health Service announced to-night that there was no evidence of willful infection of smallpox vaccine virus. All further sales, however, have been prohibited and manufacturers required to withdraw all smallpox vaccines from the market. This is a temporary precaution to allow a thorough inspection. The laboratory has not received the virus just sent from St. Paul, which is said to contain tetanus germs. (Sudden seizures of vaccines for examination ought to be made *often*. Then the people would soon learn the truth.—Author.)

VACCINATION DEATHS

We desire here to briefly mention the fact that we have before us a number of names and the addresses and ages of many children who *died* as a result of vaccination. Those who are especially interested in this phase of the subject may write to the author or to the secretary of the American Medical Liberty League, Chicago, Ill.

HEALTH THE ONLY DEFENSE AGAINST SMALLPOX

So long as people can be deluded into the acceptance of a practice so preposterous and pernicious, and so long as doctors are forced by circumstances to depend upon disease and its treatment for their

livelihood, just that long may the people expect the supply of disease to meet the professional demand therefor. This is one of the established principles of trade, and the healing art is no exception.

There is no other defense against the invasion of disease than a sound body or vigorous health; while the vaccine inoculators claim that it is only by the products of disease (vaccines, toxins and serums), professionally administered to healthy people, that the human body can be fortified against otherwise inevitable attack.

WHERE YOU MAY GET MORE INFORMATION

I. If you desire literature or more information as to why vaccination *does* prevent from smallpox and *other* diseases write to A. R. Craig, M.D., 535 N. Dearborn St., Chicago, Ill., secretary of the American Medical Association; your *State* or *Local* Board of Health; U. S. Dept. of Health; and from public and medical libraries.

II. If you desire literature or more information as to why vaccination is *useless* and *harmful* instead of being a preventive, write to any of the following:

Lora C. Little, Sec'y, American Medical Liberty League, 59 E. Van Buren St., Chicago, Ill.

The Truth Teller, W. S. Ensign, Editor, Battle Creek, Mich.

Jessica Henderson, Sec'y, Medical Liberty League, 205 Kimball Bldg., Boston, Mass.

Rev. C. H. Reimers, Sec'y, Conn. Anti-Compulsory Vaccination League, 830 E. Main St., Meriden, Conn.

H. B. Anderson, Sec'y, Citizen's Medical Reference Bureau, 145 W. 45th St., New York, N. Y.

Diana Belais, Editor, *The Open Door*, the national Anti-Vivisection and Animal Magazine, and president of the N. Y. Anti-Vivisection Society, 456 Fourth Ave., New York City.

L. Loat, Sec'y, The National Anti-Vaccination League of England, and editor of *The Vaccination Inquirer*, 25 Denison House, Vauxhill Bridge Road, London, S.W.I., England.

Charles M. Higgins, Author "Horrors of Vaccination," 271 Ninth St., Brooklyn, N. Y.

George Starr White, M.D., Ph.D., LL.D., author of "A Lecture Course to Physicians," "The Natural Way," "Think," etc., Los Angeles, Cal.

J. H. Tilden, M.D., Editor, *Philosophy of Health*, Denver, Col.

James A. Loyster (Author of "Vaccination Results in N. Y. State in 1914," with photographs of many children who died of vaccination during that year), Cazenovia, N. Y.

Benedict Lust, N.D., M.D., Author, and editor *Herald of Health and Naturopath*, 110 E. 41st St., New York, N. Y.

Bernarr Macfadden, Editor, *Physical Culture*, New York, N. Y.

Dr. Harold Wells Turner, Editor, *Health Culture*, 1133 Broadway, New York, N. Y.

Prof. A. Levanzin, Editor, *Thought Nuggets*, Seattle, Wash.

J. W. Hodge, M.D., Niagara Falls, N. Y.

Thomas Mulligan, M.D., New Britain, Conn.

E. M. Ripley, M.D., Unionville, Conn.

F. K. Perry, Union City, Conn.

L. W. Anderson, Waterbury, Conn.

Isaac L. Peebles, M.D., Author "Unanswerable Objections to Vaccination," Meriden, Miss.

J. W. Griggs, 2120-22 Lyndale Ave., South, Minneapolis, Ind.

John B. Fraser, M.D., Toronto, Canada.

Rev. H. J. Adlard, Sec'y, The Medical Freedom League of Canada, 118 Goulburn Ave., Ottawa, Canada.

A. B. Farmer, B.A., Sec'y, The Anti-Compulsory Vaccination League, Apt. 2, 378 Markham St., Toronto, Canada.

THE BIRTH CONTROL PROBLEM[1]

(That the birth control movement or the fight for Voluntary Motherhood is steadily becoming a prominent public issue in America nobody can deny. Whether or not one agrees with those who advocate a conscious limitation of conception is another story. At any rate, as liberal-minded, truth-seeking and truth-loving people, we should first of all "agree to disagree." We should hold in high esteem those who *have* opinions, especially those who openly express them. We should, first of all, have democracy in thought, democracy in intellect. Then we can begin to exchange views; learn from each other; profit by our common knowledge; and, at last, clasp each other's hand in friendliness.

There are, of course, two sides to every story. Many persons have not heard "the other side" of this one. Why should we not grant an impartial hearing on this and on *every* subject of interest that pertains to human welfare? This book, being written for intelligent adults—mothers and fathers of the race—justice will be done to the readers by presenting the views (in brief) of those who are directly

[1] The following excerpts are presented with the idea of giving the reader a clear statement from defenders *and* opponents of this movement. No reader is required to accept as final any view herein advanced. This democratic exposition may stimulate further reading and study of this health problem.

interested because of their expert knowledge as a result of years of study of this vital and timely health problem.—Author.)

I. *Reasons against Limitations of Families*, from "Social and Religious Aspects," by Dr. Mary Scharlieb, C.B.E., M.S. (Eng.), in *The Control of Parenthood*, edited by James Marchant, LL.D., C.B.E., F.R.S.Ed., Sec'y of the National Birth Rate Commission (G. P. Putnam's Sons, New York and London).

II. (a) From "Voluntary Motherhood," article by Margaret Sanger, a leading exponent of the Birth Control Movement and editor of *The Birth Control Review*, 104 Fifth Avenue, New York.

(b) Extracts from "The Goal" from "Woman and the New Race," Chapter XVIII, Brentano's, New York, 1920, by Margaret Sanger.

III. From "Birth Control," by Louis I. Dublin, Ph.D., statistician, Metropolitan Life Insurance Company, New York City, an opponent of Birth Control—an address delivered before the sixth annual meeting of the American Social Hygiene Association, New York, October 22, 1919—reprinted from *Social Hygiene*, Vol. VI, No. 1.

IV. From "Birth Control in Its Medical, Social, Economic and Moral Aspects," by S. Adolphus Knopf, M.D., Prof. of Medicine, Dept. of Phthisiotherapy, at the New York Post-Graduate School and Hospital, originally read before the American Public Health Association (New York, October, 1916)—an advocate of birth control.

REASONS AGAINST LIMITATIONS OF FAMILIES

By Dr. Mary Scharlieb, C.B.E., M.S. (Eng.)

Limitation of families is wrong and dangerous because it does not control nor discipline sexual passion, but by removing the fear of consequences it does away with the chief controlling and steadying influence of sexual life.

Secondly, the limitation of the family is not really in the interest of overburdened mothers. It may relieve them of too frequently recurring child-bearing, and from the burden of too large a household; but, on the other hand, by removing the chief check on the husband's desires and demands, it destroys the wife's protection from his too great insistence and persistence.

Thirdly, the possibility of satiating desire without incurring the risk of procreation tends to the overdevelopment of the sexual side of the characters of both man and woman. It is as if the loathsome practices of Heliogabalus made perpetual eating and drinking possible. As Foerster says: "The situations which will necessarily arise from the man's sexuality being exclusively directed towards sensuous gratification, and being unaccustomed to control, will far surpass, in tragedy, sordidness, and poisonous consequences anything which could possibly arise

from the most unlimited child-bearing. The increase of man's subjection to passion and artificial sensuousness will be disastrous."

The picture of a society under a régime of uncontrolled license, of unbridled passion, and absolute self-indulgence is far from attractive. It would be in all respects worse than anything imagined by the Epicureans. The countries which practiced such self-abuse would rapidly degenerate, and would show a lack of physical vigor and of moral greatness. If the intentional restriction of offspring was practiced chiefly by the educated classes the balance of power and of government would necessarily incline to those who were less well educated but more prolific, and who, unfortunately, would not have behind them the steadying traditions of unselfishness, of self-control, and of capacity for command. The condition of such a State would be one of sheer materialism, the conduct of life depending entirely on bodily desires, not on true bodily welfare, while the capacity for mental and moral greatness would steadily diminish. Those who approve and inculcate the voluntary limitation of families, and who would divorce the sexual act from the intention of procreation, tell us that life is imperfect without the exercise of all the functions of the body; that health both of body and mind must suffer unless sexual desires receive ample gratification; and that the denial of gratification to sexual impulse is injurious to the physical and moral well-being of both men and women. They would have us believe that men who live continent lives become impotent, and that their nervous systems suffer from their self-restraint. That these statements are not

generally correct is proved by the experience of thousands of men and women who, for various reasons, live celibate lives in absolute chastity, and who maintain physical vigor and nervous integrity. This is not only true of clergy and the religious orders, but also of many men and women who, for various reasons connected with work or with family circumstances, have neither married nor have sought physical indulgence. Doctors are practically unanimous in the opinion that young men and young women, even during the years when passion is strongest and self-control most difficult, can safely practice continence; that it does not diminish their subsequent fertility, nor does it injure their health. If these young people can be continent without suffering injury, still more can those who are older and whose passions are less eager. In the case of the married couple, their mutual love and the tender intimacy of abstinence may be more difficult on account of their lives, but even in such cases abstinence can be practiced without injury, although it may be that it entails more regret and more difficulty. There can be few cases in which absolute abstinence is necessary for married couples apart from those who, owing to unhealthiness of mind or body, ought not to have entered into the contract of marriage.

A consideration of the relations between the sexes in the lower orders of creation shows that at any rate in the higher order of mammals, intercourse between the male and female occurs only at certain intervals, and that it is normally followed by pregnancy. It is rare for the female to be willing to receive the advances of the male except at regular

intervals, special to each variety of animal. Probably the much more frequent desire of human beings is partly due to the fact that they are brought up to expect and to claim unlimited sexual intercourse as a right, partly to the unfortunate dual standard of legal morality, and partly to the inferior legal and social position of woman, which has led to the opinion that whereas any lapse from morality on her part must bring with it social ostracism and censure, it has very generally been considered neither wrong nor discreditable for men to consort with women who were not their wives, even after marriage. . . .

In passing, one may well admit the justice of the view that a woman should not be coerced into motherhood, nor indeed into sexual union, but surely the true freedom and safety of woman should be secured by the chivalry and reverent love of her husband; and it is to be remembered that contraceptive methods, far from aiming at giving the mother full control over her own body, aim only at preventing conception, and, by relieving the husband of all responsibility and fear of consequences, the use of them inevitably tends to make his demands greater. . . .

The injury that a general reception of contraceptive teaching would inflict upon the unmarried is even greater. A knowledge of the methods of preventing conception cannot but tend to break down the safeguards that are so badly needed by many unmarried men and women. The mere discussion of contraceptive methods is lowering to the moral sense and to the innate reserve and purity of decently brought-up young people. That such a subject should be made

the matter of public discussion is a deep injury to the conscience of the nation, and if the methods detailed by Dr. Stopes should become generalized there is reason to fear that many thousands of young people who might otherwise have retained their virtue, and who might have looked forward to honorable matrimony, will be injured both in body and soul. It is also probable that a very considerable proportion of unmarried people who indulge in promiscuous relations will be in danger of contracting venereal diseases. . . .

. . . It has always been held that women are the superiors of men in the matter of sexual morality; we have no truth of this belief. In regard to other shortcomings, such as untruthfulness, dishonesty and selfishness, the two sexes appear to be fairly on an equality, and there is some reason to think that the woman's higher standard of sexual morality is very largely the product of her age-long fear of the consequences of immorality. . . . Up to the present time the dual standard has prevailed, and sexual dereliction on the part of the man has always been considered to be so natural and so common as to need little excuse or apology. On the other hand, the woman who has had an illegitimate child has been considered to be so degraded that even the attempt to rescue her has been a forbidden subject in polite society. Parents have not hesitated to give their daughters in marriage to men who were notorious evil livers, but men have very rightly objected to marrying a girl who was known to have made so fatal a mistake. . . .

Probably the correct rhythm of reproduction in

the human being is an interval of about two years. If we had not become oversexed by undue indulgence there would have been little conception except immediately after a period, and none during lactation. The remedy lies in the direction of athleticism and self-control.

The evidence given before the Royal Commission on Venereal Diseases showed that the act to which infection with these diseases is generally due was committed in some 90 per cent of the cases while the individual was under the influence of alcohol. Not that he or she was necessarily drunk, but that alcohol enough had been taken to silence conscience and to cloud the judgment. In like manner, much of the excessive sexuality and gross materialism that conspire to cause overfrequent demands upon a partner's generosity have their origin in the same deterioration of moral control. There is reason to hope that our country will not again descend to the level of excessive alcoholism which disgraced it before the war. . . .

A woman living under physiological conditions would probably have a child about once in two years —nine months' lactation, six months' holiday, and nine months' pregnancy would prevent a woman from the very undue strain of bearing a child once a year. If married life began about the age of twenty, the young woman's fertility would be at its height, and it would generally have begun to diminish by the time she had borne five or six children. A family of this size would be none too big for the necessities of the Empire. Two children might be taken as representing the father and mother in the home popula-

tion, while three or four would not be too large a contribution towards the adequate population of the Britains Overseas. It may be true that England is already sufficiently populated, but the same cannot be said of the outlying parts of the Empire, some of the fairest parts of which are so sparsely populated that they offer almost overwhelming temptations to their neighbors.

We must also remember that for many years to come every potential husband and father, every living and healthy child, is a valuable national asset. We have lost most of the young men who ought to have been the fathers of the next ten or fifteen years. Mercifully, the reproductive period of men is not so limited as is that of women; if it were, the position of our population would be hopeless. But even as it is, every effort should be made to assist the working population, and perhaps even more those members of the community who are well educated and have a real stake in the country, but whose small fixed incomes make their real economic position worse than is that of the laboring classes.

Graduated remissions of income tax, the endowment of mothers and of children up to the age of fourteen, the provision of a real living wage, and the steady encouragement of all classes to work hard and to increase our exports are amongst the means that may be taken to solve the problem of the birth rate. . . .

VOLUNTARY MOTHERHOOD

By Margaret Sanger

Birth Control when based on the theory of voluntary motherhood becomes the new moral standard and social principle which shall be the foundation of a new glorified womanhood.

Long has woman been called the gentler and weaker half of human kind; long has she borne the brunt of unwilling motherhood; long has she been the stepping-stone of oligarchies, kingdoms and man-made democracies; too long have they thrived on her enslavement. The time has come at last when she demands her physical and spiritual freedom—and her liberty.

When woman becomes conscious of her ego, her inner self, then shall she become a pivot in the world's advanced thought, and shall hold within her hands the reins of human destiny. Those who have opposed her development and progress are simply those who refuse to accept this new moral standard for her. They do not realize that Birth Control, which shall place woman in possession of her own body, is an epoch-making process in racial development. They do not realize that this new social principle, born out of the hearts and desires of womankind, shall be the medium to bring to the light of day the SORROWS AND SUFFERINGS that have afflicted

humanity, and shall point the way to their elimination.

Those who have opposed Birth Control have overlooked the fact that WOMAN ALONE HAS ENDURED THE PANGS OF CHILD BIRTH, and has gone into the Valley of the Shadow of Death for every baby born. For centuries she has populated the earth in ignorance and without restraint in vast numbers and with staggering rapidity. She has become not the mother of a nobler race, but a mere breeding machine grinding out a humanity which fills insane asylums, feeble-minded institutions, hospitals and penitentiaries. We see the nations of Europe on bended knee, begging, imploring, crying to woman, using every subterfuge to induce her to breed again in the old-time submission to man-made laws. To all these entreaties the Modern Woman answers: No!

We hear so much of sacred motherhood. Have the forces of oppression ever cared for her poignant grief? Have they not turned in callous indifference from her tears while her flesh and blood reddened every battlefield in history? There are statues in plenty to kings, statesmen and generals who have led her sons off to the universal shambles of slaughter. But where are the monuments of motherhood?

Of course, under the pressure of hungry mouths asking to be fed miracles have been done in relieving distress, through charities and philanthropies, but never has the actual CAUSE been touched, never have we been able to secure peace, never to provide plenty, never to fully satisfy the demand, never have we been free from disease, misery and crime. With

the millions yearly spent upon these bottomless pits called charities, never once has any one attempted to cure the disease. They have treated the symptoms, but the deadly disease has been allowed to spread underneath.

My constant thought: How can I arouse the people, and the women of this country especially, to what I know so that these laws will be challenged and changed? I felt so powerless. I had no influence, no money, few friends. I had only one way of making myself heard. I felt as one would feel if, on passing a house which one saw to be on fire and knew to contain women and children unaware of their danger, one realized that the only entrance was through a window. Yet there was a law and a penalty for breaking windows. Would any one of you hesitate, if by so doing you could save a single life?

In trying to test the constitutionality of this law every barrier was placed in my way and that of my attorneys. Medical testimony of four physicians was refused, who wished to state that there are thousands of women to-day suffering from tuberculosis, pelvic deformities, heart disease, etc., to whom pregnancy would mean almost certain death, but whose lives might be saved and their health preserved through knowledge of how to prevent conception. Mrs. Byrne and I were denied the privilege of paying a fine pending the decision of our appeal and were ruthlessly cast into prison like the lowest cut-throat and degraded prostitute. There was no consideration shown us or understanding of what we were trying to do. No recognition that we are both married women and mothers of children. No recognition of

the pains we took to give the information in a private place, by word of mouth and to mothers only. No recognition of the congested neighborhood, and the need in it for family limitation, or the women who testified of their distress and poverty and horror of pregnancy, and of the great relief and new hope in life that the clinic brought to them. The spirit of the Inquisition reigned supreme in the court and held a piece of parchment more sacred than human life, womanhood and motherhood. I hope you will see with me that this statute, and all such statutes, are against all the demands of modern thought and civilization. . . .

Far back upon the road of To-day millions of women are trudging along overburdened with too many children; bowed, bent, broken, they stumble along. They call to you to listen to their piteous cry? What will your answer be?

FROM "THE GOAL" LAST CHAPTER IN "WOMAN AND THE NEW RACE"

By Margaret Sanger

What is the goal of woman's upward struggle? Is it voluntary motherhood? Is it general freedom? Or is it the birth of a new race? For freedom is not fruitless, but prolific of higher things. Being the most sacred aspect of woman's freedom, voluntary motherhood is motherhood in its highest and holiest form. It is motherhood unchained—motherhood ready to obey its own urge to remake the world.

Voluntary motherhood implies a new morality—a vigorous, constructive, liberated morality. That morality will, first of all, prevent the submergence of womanhood into motherhood. It will set its face against the conversion of women into mechanical maternity and toward the creation of a new race.

Woman's rôle has been that of an incubator and little more. She has given birth to an incubated race. She has given to her children what little she was permitted to give, but of herself, of her personality, almost nothing. In the mass, she has brought forth quantity, not quality. The requirement of a male-dominated civilization has been numbers. She has met that requirement.

It is the essential function of voluntary motherhood to choose its own mate, to determine the time

of child-bearing, and to regulate strictly the number of offspring. Natural affection upon her part, instead of selection dictated by social or economic advantage, will give her a better fatherhood for her children. The exercise of her right to decide how many children she will have and when she shall have them will procure for her the time necessary to the development of other faculties than that of reproduction. She will give play to her tastes, her talents and her ambitions. She will become a full-rounded being. Thus and only thus will woman be able to transmit to her offspring those qualities which make for a greater race. . . .

Birth control itself, often denounced as a violation of natural law, is nothing more or less than the facilitation of the process of weeding out the unfit, of preventing the birth of defectives or of those who will become defectives. So, in compliance with nature's working plan, we must permit womanhood its full development before we can expect of it efficient motherhood. If we are to make racial progress, this development of womanhood must precede motherhood in every individual woman. Then and then only can the mother cease to be an incubator and be a mother instead. Then only can she transmit to her sons and daughters the qualities which make strong individuals and, collectively, a strong race.

Maternal love, which usually follows upon a happy, satisfying mate love, becomes a strong and urgent craving. It then exists for two powerful, creative functions. First, for its own sake and then for the sake of further enriching the conjugal relationship. It is from such soil that the new life should

spring. It is the inherent right of the new life to have its inception in such physical ground, in such spiritual atmosphere. The child thus born is indeed a flower of love and tremendous joy. It has within it the seeds of courage and of power. This child will have the greatest strength to surmount hardships, to withstand tyrannies, to set still higher the mark of human achievement. . . .

When motherhood becomes the fruit of a deep yearning, not the result of ignorance or accident, its children will become the foundation of a new race. There will be no killing of babies in the womb by abortion, nor through neglect in foundling homes, nor will there be infanticide. Neither will children die by inches in mills and factories. No man will dare to break a child's life upon the wheel of toil.

Voluntary motherhood will not be passive, resigned or weak. Out of its craving will come forth a fierceness of love for its fruits that will make such men as remain unawakened stand aghast at its fury when offended. The tigress is less terrible in the defense of her offspring than will be the human mother. The daughters of such women will not be given over to injustice and to prostitution; the sons will not perish in industry nor upon the battlefield. Nor could they meet these all too common fates if an undaunted motherhood were there to defend. Childhood and youth will be too valuable in the eyes of society to waste them in the murderous mills of blind greed and hate. . . .

In their subjection women have not been brave enough, strong enough, pure enough to bring forth great sons and daughters. Abused soil brings forth

stunted growths. An abused motherhood has brought forth a low order of humanity. Great beings come forth at the call of high desire. Peerless motherhood goes out in love and passion for justice to all mankind. It brings forth fruits after its own kind. When the womb becomes fruitful through the desire of an aspiring love, another Newton will come forth to unlock further the secrets of the earth and the stars. There will come a Plato who will be understood, a Socrates who will drink no hemlock, and a Jesus who will not die upon the cross. These and the race that is to be in America await upon a motherhood that is to be sacred because it is free.

BIRTH CONTROL

By Louis I. Dublin, Ph.D.

. . . The principle behind the prohibition of birth control instruction is that contraceptive methods are destructive to the best interests of the state and that they are immoral in effect, because detrimental to the individuals who practice them. The state looks to its own perpetuation, and anything which endangers that is illegal. Birth control implies cohabitation divorced from procreation. The moral sense of the community looks upon this as unnatural; in fact, as a grave perversion of function, and therefore to be prevented. The law stamps the disapproval of the community upon such conduct. Furthermore, it is assumed that the law acts as a restraint upon the appetites of persons, especially the unmarried who might otherwise gratify their desires to their own and the community's detriment. Such a deterrent safeguards the integrity of the family, upon which the welfare of the state depends.

I believe that I have stated the case for the state without bias. On the other hand, it should be frankly admitted that birth control is now very widely employed and by all classes of society. The well-to-do practice it, as is openly admitted by almost every one and as is eloquently demonstrated by their very low birth rate. The law is honored more in the

breach than in the observance. Some doctors do impart such information in spite of the law and irrespective of the social consequences of such instruction. Other physicians, restrained by the law, may remain silent in cases where in their judgment it would be better that information on birth control should be given to prevent hardship and suffering. A law which is not enforced and which cannot be enforced is of little service. It undermines respect for law in general.

Nor does the law, as we now have it, truly represent the community attitude on this subject. The law is entirely negative. It is not a positive guide to what the best interests of the community require. I believe, therefore, that whatever be the merits of the opposition to a repeal of the existing statutes, all might well agree to an amendment which would permit properly qualified physicians to impart information to married people in such cases where, in their judgment, the interests of society would not suffer from this instruction. Little, if anything, would be lost to the community, and with the legal restriction out of the way, we would be in a better position to consider the questions of population and of parenthood in a constructive and sober manner in order to develop a public point of view.

BIRTH CONTROL AND THE POPULATION PROBLEM

The birth control movement assumes that the world suffers from overpopulation and that the first thing to do to put the world in order is to decrease the birth rate. This is implied in everything that has been written by the advocates of birth control.

The birth rate is, after all, a relative value, and whether it is high or low depends upon a standard. A good fixed point for our discussion is such a birth rate as will maintain the population at a fixed level; that is, neither increase it nor decrease it in the course of a generation. In a previous technical study of this question I have shown that under present conditions of the death rate it requires an average of close to four children per family to keep the population stationary. Two children reaching maturity are required to replace their parents, and because of the high mortality in infancy and early childhood and because so many people do not marry, it requires an average of nearly four children per completed family to make a new generation as large as the old. An average of one, two or even three children per family, therefore, means a loss in population; an average of five or six children means an increase in the population.

I wonder whether you realize what the true facts of the birth rate are in the United States at the present time, or what they have been in the last ten years? Do you know that the birth rate in the United States is this year about what it was in France before the war? The birth rate in New York is around 20 per 1,000 of population. This represents a drop of about 20 per cent in four or five years. The rate has been declining for a number of years, but never so rapidly as it has recently. We have now reached the point where one baby is born each year to every tenth family. Does this strike you as an excessive birth rate? Do we need more birth control? How many people in this room

have families of four children? How many families do you know where there are four children? It is one of the most striking facts in our social life that the persons upon whom the public opinion and constructive effort of our country depend are raising families of less than four children. Special studies which have been made among many groups of persons such as college professors, teachers in schools, business people of good position, and among large groups of the native-born of native parentage, demonstrate an extraordinarily low average number of children per completed family. There is only one conclusion to be drawn: these groups are not reproducing themselves. These people and stocks are quickly dying out and their place is being taken by a new generation who are the offspring of our fertile immigrants. . . .

BIRTH CONTROL AND THE PROBLEM OF POVERTY

If there is poverty and misery in the world, and there is a great deal of it, the way to attack poverty and misery is not by destroying mankind and its civilization. There are better and more direct ways. Poverty may be reduced by destroying exploitation of man by man, and we are destroying it slowly but surely. Poverty may be destroyed by training people to be more productive in industry, by developing their skill and character, and by making them more ambitious for attainment, and we are learning all the time to do that better. Poverty may be reduced by checking the birth of incompetents, of degenerates, of defectives, through segregation and control of

the prospective parents of such offspring. Birth control, through the spread of contraceptive knowledge, will hardly help in such cases. It will require recognition of the undesirable stocks, their forcible detention, and sex segregation by the state to accomplish this result. The poverty and misery which we see about us is largely the result of maladjustment in a highly complex society. The proper answer is not to reduce the number of people indiscriminately and to quiet discontent with a false sense of security. Much more will be accomplished by directing an attack on poverty, first by impartially determining, then by checking, its true causes. Healthy men always produce more wealth than they consume. The wealth of the world, in fact, is cumulative. We have not only our own production, but all that which has gone before. Each new generation can, therefore, be more numerous than its predecessor. We are far from having reached our limit. To admit that we have is to put ourselves down as exhausted, as played out. No, birth reduction is no cure for poverty. It would stop our constructive effort at removing the causes of poverty and we would end by adding to our poverty of things the much worse poverty of spirit.

BIRTH CONTROL AND VENEREAL DISEASES

Another claim of the advocates of birth control, to which we have already referred, is that a wider use of contraceptives would result in a reduction of immorality and of venereal disease. It is difficult to see how they come to such a conclusion. Now and then we find some of their more cautious supporters

distinctly worried over the possibilities that are involved in the more general practice of their propaganda. They seem to realize that there will be a great temptation thrown in the path of young people to which many will succumb. At the present time there is at least the deterrent of the natural consequences of their act. With birth control knowledge universal, that deterrent is removed and promiscuity may become much more general because much safer. . . .

. . . I can see no escape in any reasonable social philosophy from the conclusion that it is the duty of individuals in a society to preserve, improve and perpetuate it. Society cannot sanely discuss its own dissolution any more than an individual can sanely determine his own destruction. It must continue and grow richer in content of lives and of tradition. Tradition is an epitome of all that has gone before; lives carry our tradition forward into the future; together they make up the stream of civilization. Whatever interferes with this stream or blocks its course is antisocial and must be checked. This is axiomatic. To deny this is to remove all purpose and rationality from existence. If the perpetuation and enrichment of civilization is not the aim of our existence, then there can be no worthy aim and the sooner we stop the grim comedy the better.

In line with this thought, I would make a number of suggestions toward building up a positive and constructive social program on the population question.

In the first place, the state must radically revise the education of both its boys and its girls. Our

system of education must inculcate national ideals. It is not enough for education to insure efficiency; we must also develop enthusiasms for the common good. Our young men and women must be taught to realize early that we do not live for ourselves alone. The education of our women is especially faulty in this regard. Our schools and colleges with few exceptions direct the thoughts and energies of our girls away from normal home life. Our girls graduate from school and college often without any instruction in what will prepare them to be good mothers and wives. The old virtues of womanhood need restatement to-day; for whatever else women learn in the school, they must be educated for their place as mothers. A democratic education must make sufficient provision for this primary function.

The state must also put a premium upon child-bearing. The bearing and rearing of children is costly, both in energy and in funds, and acts as a check on personal ambition and on the enjoyment of the freedom and pleasures of social life. Success as a mother is, in the majority of cases, at the expense of achievement in other fields. The state should reward, either substantially or with esteem, the women who are willing to bring up families of normal size. It may be found expedient to encourage parenthood by fixing exemption from taxes, municipal, state and federal, on the basis of the size of the family. This principle has already been acknowledged in our federal tax system. It needs to be largely extended and coupled with much heavier rates of taxation for the unmarried. . . .

In conclusion, let me emphasize the need for birth

release among the healthy and normal people of our country as a primary national duty. Such release must be conscious and deliberate, the act of will of free individuals who thus express a highly moral purpose.

BIRTH CONTROL IN ITS MEDICAL, SOCIAL, ECONOMIC AND MORAL ASPECTS

By S. Adolphus Knopf, M.D.

. . . No one will deny that we occasionally come across a family, well to do and intelligent, where the parents by reason of unusual vigor, and particularly by reason of the physical strength of the mother, have been able to rear a large number of children. In some instances all have survived and have grown up to be healthy and vigorous, but these instances are rare and are becoming more and more so every day. On the other hand, large families—that is to say, numerous children as the issue of one couple—among the ignorant, the poor, the underfed and badly housed, the tuberculous, the degenerate, the alcoholic, the vicious, and even the mentally defective, is an every-day spectacle. It is well known to every general practitioner whose field of activity lies among the poor and the above-mentioned classes, that the infant mortality among these is great. The same holds true of the mortality of school children coming from large families among these classes of the population.

Concerning tuberculosis, with which, by reason of many years' experience, I am perhaps more familiar than with other medical and social diseases, let me relate the interesting fact that a carefully taken

history of many, many cases has revealed to me that with surprising regularity the tuberculous individual, when he or she comes from a large family, is one of the later born children—fifth, sixth, or seventh or eighth. The explanation for this phenomenon is obvious. When parents are older, and particularly when the mother is worn out by frequent pregnancies and often weakened because obliged to work in factory or workshop up to the very day of confinement, the child will come into the world with lessened vitality, its main inheritance being a physiological poverty. This systemic poverty will leave it less resistant, not only to tuberculosis but to all other disease of infancy and childhood as well. (Read chapter "Tuberculosis."—Author.)

What is the result of this condition in relation to tuberculosis—one single disease? Out of 200,000 individuals who die annually of tuberculosis in the United States, 50,000 are children. Of the economic loss resulting from these early deaths I will speak later on, but in continuing along the medical and sanitary lines of my subject I must call your attention to the fact that according to some authors 65 per cent of women afflicted with tuberculosis, even afflicted only in the relatively early and curable stages, die as a result of pregnancy which could have been avoided and their lives been saved had they known the means of prevention. . . .

The economic loss to our commonwealth from bringing into this world thousands of children mentally and physically crippled for life is beyond calculation. But considering tuberculosis we have been able to calculate at least approximately what it

costs. I stated above that 50,000 children die annually from tuberculosis in the United States. Figuring the average length of life of these children to be seven and one-half years and their cost to the community as only $200 per annum, represents a loss of $75,000,000. Such children have died without having been able to give any return to their parents or to the community. Who will dare to calculate in dollars and cents the loss which has accrued to the community because so many mothers died of tuberculosis when an avoidable pregnancy was added to a slight tuberculous ailment in a curable stage? Who will dare to estimate the cost of the loss of an equally large or perhaps larger number of mothers afflicted with serious cardiac or renal diseases, or frail or ill from other causes, whose lives could have been prolonged had an additional pregnancy not aggravated their conditions?

Next to the medical and sanitary comes the physiological aspect of birth control, which can be summarized in a few sentences. The average mother with two, three or four children, not having arrived in too rapid succession, say, with two or three years intervening, is physiologically—that is to say, physically and mentally—stronger and better equipped to cope with life's problems than the wornout and weakened mother whose life is shortened by frequent and numerous pregnancies.

What is the physiological effect of voluntary artificial restrictions of the birth rate? In Holland, where the medical and legal professions have openly approved and helped to extend artificial restriction of the birth rate, the health of the people at large,

as shown by its general death rate, has improved faster than in any other country in the world. At the recent Eugenics Congress it was stated that the stature of the Dutch people was increasing more rapidly than that of any other country—the increase no less than four inches within the last fifty years. According to the Official Statistical Year Book of the Netherlands, the proportion of young men drawn for the army over five feet seven inches in height has increased from 24½ to 47½ per cent since 1865, while the proportion below 5 feet 2½ inches in height has fallen from 25 per cent to under 8 per cent.

In Australia and New Zealand the means of artificial restriction are in free circulation and the restriction of families is almost universal. Yet these two English colonies have furnished to their mother country in these hours of struggle the most efficient and physically and mentally best equipped regiments. The soldiers of Australia and New Zealand have shown themselves brave and fearless fighters and certainly equal, if not superior, as far as physical endurance is concerned, to their English brethren. In the latter country it is well known that birth control is frowned upon by the legal and nearly all the ecclesiastical authorities. . . .

. . . The larger the family of the poor, the more child labor, the more there is disruption and irregularity, and the more frequently one finds a lower standard of life and morals in general. The records of our charities and benevolent societies amply prove that as a rule the larger the families are that apply for relief the greater is their distress.

That judicious birth control does not mean race suicide, but on the contrary race preservation, may best be shown from the reports from Holland. The average birth rate in the three principal cities of Holland was 37.7 per 1,000 in 1881, when birth control clinics were started. In 1912 it had fallen to 25.3 per 1,000. The general death rate, however, had dropped in the same period from 24.2 to 11.1 per 1,000, or to less than half, while the two-thirds reduction in the mortality of children under one year of age—from 209 to 70 per 1,000 living births—is even more significant. . . .

And now I approach the last and most important phase of my subject, namely, the moral.

A quarter of a century of practice among the tuberculous, the rich and the poor, in palatial homes, humble cottages, dark and dreary tenements, and in overcrowded hospitals, has shown me enough to bring to my mind the utter immorality of thoughtless procreation and my experience has been limited to this one disease of the masses. The tears and sufferings I have witnessed when I have had to decline help because it was too late to prevent the despair of the poor, frail mother at the prospect of another inevitable confinement, and later the sight of a puny babe destined to disease, poverty and misery, has made me take the stand I am taking to-day. I am doing it after profound reflection, and I am fully aware of the opposition I am bound to meet.

There are hundreds of young men and women, physically and morally strong, who gladly would enter wedlock if they knew that they could restrict

their family to such an extent as to raise a few children well. But their fear of a large family retards, if it does not prevent, their happiness and the procreation of a better and stronger manhood and womanhood. The woman withers away in sorrowful maidenhood and the man whose sexual instincts are often so strong that he cannot refrain, seeks relief in association with the unfortunate and often diseased sisters, called prostitutes. The result is a propagation of venereal diseases with all its dire consequences.

At times disease does not enter as a factor in the tragedy, but the result is a girl mother, a blasted life, for our double standard of morality recognizes the "sin" only in our sisters, not in ourselves. Of her compassionate tongues only say she loved not wisely but too well; of him nothing is said at all. He is spotless and virtuous in the eyes of the world and can go through life as if he had never sinned and been responsible for a blasted life or two. . . .

The critics of birth control maintain that with the knowledge of birth limitation many women, whether poor or rich, who should and can bear children will shirk the duties of motherhood. This I do not believe to be true. You can no more prevent the desire for motherhood in the normal healthy woman than you can stem the tide of the ocean. It is inherent in every woman's heart. With more marriages of young people and a rational birth control, I do believe there will not be fewer children but the same number of better ones. There will be, of course, instances—and there are too many in certain classes of society now—where for purely selfish reasons the

marriage remains barren, but it is a question in my mind whether it would be really desirable for society to have such women be mothers.

Finally, I must mention the almost pathetic criticisms of some of my colleagues who wrote me, in answer to my request for an expression of opinion, that the matter of birth control was a question not for the medical profession, but for the laity. To such I can only express my regret at their attitude. The physician of the twentieth century who deals only with the purely medical and curative part of his profession, who is indifferent to measures to prevent disease, and cannot feel with the social sufferings of the masses, is lacking in the highest ideals of his calling and misses the greatest opportunity of benefiting suffering mankind. . . .

I believe in birth control, that is to say, birth limitation, based on medical, sanitary, highest ethical, moral and economic reasons. I believe in it because with the aid of it man and woman can decide when to have a child, work and prepare for its arrival, welcome it as the fulfillment of their heart's desire, watch over it, tenderly care for and educate it, and raise it to be what every child should be destined for—a being happy, healthy, strong in mind, body and soul.

AUTHOR'S COMMENT

I. Acting in the capacity of "chairman of the meeting," we are entitled only to the "last word." We feel that our duty is largely done when *both* sides of the controversy are presented fairly by the best experts we have been able to secure. The reader is the sole judge and jury, and, of course, it is hoped that he will ponder over the essential aspects of the case in a logical, tolerant mood, consulting other works on the subject before forming a mature opinion.

II. As to the birth control problem proper, we may briefly say this: If it is logical and physiologically correct not to eat when not hungry; not to drink when not thirsty; not to sleep when not sleepy; and not to do other things when not in a mood to do so or when incapacitated from so doing, why should a woman be forced to have more children than she is normally capable of having or desires, when to have them "by accident," perhaps even syphilitic or tubercular, may cause her death or that of the child, or both, at the time of birth or soon after?

Further, why not have such good economic circumstances and healthy environment in general that people will be encouraged to find their soulmates (a rare thing these days) sooner than they usually do, marry because they love each other (no other marriage should exist), and thus be happy to bring into

existence the "fruits of love" in the form of desired, healthy babies? Such welcome children would be a crowning glory to Society that made them possible, and a joy as well as incentive for the parents who acted as the medium through which nature so beautifully performed her function.

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